

CITY OF READING, PENNSYLVANIA

ENVIRONMENTAL DIVISION
815 WASHINGTON STREET
READING, PA 19601-3690

PUBLIC WORKS
DEPARTMENT

January 30, 2009

Ms. Margaret L. Hutchinson, Esq.
Assistant United States Attorney
Civil Division Eastern District of Pennsylvania
615 Chestnut Street
Suite 1250
Philadelphia, PA 19106-4476

Re: City of Reading Consent Decree
Calendar Quarterly Progress Report
4th Quarter 2008

Dear Ms. Hutchinson:

In accordance with Section VI Reporting Requirements, Paragraph 41, you will find enclosed the City of Reading's Calendar Quarterly Report. This documents progress and status on the implementation of Section V Remedial Measures described in Paragraphs 7 through 40. Please feel free to contact me at 610-655-6258 should you have any comments or questions.

Sincerely,

Deborah A.S. Hoag, P.E.
Utilities Division Manager

DH/eh

Cc: Christopher A. Day, Esq., US EPA
✓ Lisa Trakis, US EPA
Lee McDonnell, PA DEP
Shawn Arbaugh, PA DEP
Charles M. Jones, P.E., Director of Public Works
Ralph E. Johnson, Superintendent
Stephen K. Hydro, P.E., Black & Veatch
David A. Binder, Esq., Legal Counsel
Keith Mooney, Esq., Legal Counsel

file



**City of Reading Consent Decree
Calendar Quarterly Progress Report
Period Ending December 31, 2008**

0009

V. REMEDIAL MEASURES

A. General Duties

7. Duty to Comply with Permit – In progress. The City's wastewater treatment plant had one NPDES permit issue during this quarter. The dissolved oxygen was below the minimum requirement for a two-hour period on October 16, 2008 during a maintenance project.

8. Operation and Maintenance of the Facility – In progress. The City continues work formalizing and documenting the operational and maintenance procedures related to the treatment plant, pump stations, collection system, and laboratory.

B. Interim Measures

9. Interim Compliance – Environmental Management System

(a) **Submission** – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. *The City awaits a response for the approval of the system and its components listed below as proposed.*

(b) **Maintenance Management System** - Continuing progress. The City continues the planned implementation of improved and expanded use of the Antero computerized maintenance management system. This ongoing increased use of the maintenance management system includes recurring work orders for maintenance upon discovery of the unaddressed cause of any problem. The use of this system is treated as an ongoing tool for the facilities' operations and maintenance. The wastewater treatment plant will migrate to the new CMMS being developed for the collection system due to the interrelated operations and maintenance activities.

(c) **Supervisory Control and Data Acquisition (SCADA) system**

1. Interim SCADA System – Completed and certified.

2. Upgrades to SCADA System – Not applicable. Upgrades not required based upon the submission and approval of paragraph 18. While not required by the Decree, the City continues progress with this operational tool in planning for the future plant improvements and ensuring operational consistency. Black & Veatch (B&V) has been retained to oversee the SCADA development for consistency and the development of standards and conventions for future use in the plant upgrades. Additional operational parameters continue to be added to the SCADA system. Select existing screens have been modified for operational and visual consistency and modifications to additional screens are planned. Troubleshooting is on-going regarding the report generation to ensure accuracy and format. Finally, options to utilize the SCADA system as a reference tool have been instituted such as for non-routine conditions such as emergency power utilization and equipment restart.

(d) Pretreatment Data Management System – Continuing progress.

The City continues the ongoing data entry into a commercial pretreatment database as well as an abbreviated spreadsheet as analytical results are received from both City sampling and industry self-monitoring.

10. Interim Plant Influent Monitoring – Completed and continuing as required.

The City compares two meters on the force main from the Sixth and Canal pump station (6&C PS) to the WWTP. One is close to the 6&C PS while the other is at the WWTP. To this point, the City has used the meter at the WWTP for the influent loading calculation. The City investigated the 42" force main routing for any causes of disparity in metering. Due to the age (1959) and unknown condition of the primary device associated with the WWTP meter, the newer, non-invasive 6&C PS flow meter will be used from this point until this is no longer required due to physical changes to the influent lines.

As part of the influent monitoring, the City monitors the recycle flows as calculated from this influent load and the WWTP influent with recycles. A team has been created to evaluate and resolve questionable WWTP recycle loading data. This team has been assessing sample and flow data to determine the cause for what appears to be erroneous WWTP recycle data. A flow meter was added and sampling locations and techniques are being compared to assure representative samples are collected. Trending and comparisons to plant maintenance schedules have been determined to be part of the disparity and the team is continuing to investigate other influences. Results of this ongoing assessment will be available in a future report.

11. Interim Trickling Filter Performance Measures – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for trickling filter continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

(a) Performance Improvements – Completed and ongoing as part of the Operations and Maintenance plan using the Computerized Maintenance Management System.

(b) Unit Efficiency Monitoring Recirculation Rate – Completed.

(c) Recirculation Rate - Completed with flow monitoring continuing for the primary recirculation. Since the identification of available piping, secondary trickling filter recirculation has been in continual use. The combined recirculation was increased to 75% with marked improvements in the biological growth noted on the secondary trickling filters. City staff has made physical modifications to improve the flow metering for the secondary recirculation rate.

(d) Longer Term Monitoring and Reporting – Completed and continuing with modified locations as approved.

12. Process Control Testing – Completed and continuing as required. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for treatment units' continuing

monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

13. Dangerous Gas Detection – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Inspection and calibration are being done routinely and repairs are made when noted upon inspection.

14. Certified Plant Operators – The City currently has six shift supervisors who are assigned in categories as follows: day, evening, night, and rotating shifts, operational maintenance, and administrative. The supervisors began continuous coverage on November 1, 2006 as scheduled. To ease the tracking of licensed employees for the facility, a table has been developed for the facility's shift supervisors, and related City management staff. The facility currently requires a PA DEP Class A-2 for the plant and an E-4 for the collection system. These dual certification requirements have been extended to appropriate plant staff as they are also responsible for the pump station in the collection system. Shift supervisors, by virtue of their written job description, are required to pass the appropriate certification examination within twelve (12) months of hire or promotion into the position and all have done so. Most of the shift supervisors are new to the wastewater field. As a result, they are required to obtain the requisite operating experience prior to being issued their certification. During the fourth, the night shift supervisor resigned. The rotating shift supervisor moved to the night shift position and a prior City shift supervisor, who is already fully certified, was rehired for the vacant rotating shift position. All shift supervisors have received the appropriate PA DEP operator certification as detailed in the table below.

Employee	Title	PA DEP Certification
Charles M. Jones, P. E.	Director of Public Works	A,E – 1,2,3,4
Deborah A. S. Hoag, P. E.	Utilities Division Manager	A,E – 1,2,3,4
Ralph E. Johnson	Wastewater Superintendent	A,E – 1,2,3,4
Roger D. Hillibush	Operations Supervisor	A,E – 1,2,3,4
Russell L. Stoudt	Maintenance Supervisor	A,E – 1,2,3,4
Jackie C. Hendricks	Environmental Program Coordinator	A,E – 2,3,4
Amy L. Morriss	Laboratory Supervisor	A,E – 1,2,3,4
Gregory R. Fetter	Shift Supervisor – Operational Maintenance	A,E – 1,2,3,4
Robert E. Gensemer	Shift Supervisor - Administrative	A,E – 2,4
George E. Fultz, II	Shift Supervisor – Day	A,E – 2,4
Felix V. Stacherski	Shift Supervisor – Evening	A,E – 2,4
Daniel J. Dixon	Shift Supervisor – Night	A,E – 2,4
Roger R. Spitler	Shift Supervisor – Rotating	A,E – 1,2,3,4

The selected treatment alternative, as approved under Paragraph 18, requires an A-1 certification which is not currently required for the existing treatment plant. Most managers already possess this certification and some of the shift supervisors have studied and taken the activated sludge module in advance of the construction to be prepared for the plant's transition from trickling filters to activated sludge. Additionally, the City has been discussing flexibility with the certification

wording with the AFSCME local representing first level supervisors so that changes in technology or certification requirements do not require additional contract negotiations. *As discussed in the March 21, 2006 meeting (and the July 10th telephone conference), the new supervisory employees do not have specific wastewater experience prior to their hire but are required to pass the certification exam within twelve months of hire. PA DEP certification experience and training requirements do not allow the issuance of the operator certification based solely on the passing of the examination. Alternate language was proposed due to the difficulty recruiting already certified personnel to fill these positions and the timing required to obtain certification to provide the level of staffing required. The City suggests changing from "individual shall be required to obtain certification within 12 months of the date of hire" to "individual shall be required to pass the certification examination within 12 months of the date of hire" While this is no longer an issue with the current supervisors, the City still awaits the formal response regarding the proposed alternate language in the event of a change in personnel.*

15. Operations and Maintenance Plan - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. *The City awaits a response for the approval of the plan and its components listed as proposed.* Progress continues with future planned activities as discussed in the submitted plan. In the assessment of key processes, the City took action to eliminate bottlenecks and vulnerabilities to improve the performance of the existing plant. This was done as a necessary step to ensure regulatory permit compliance until the construction and start-up of the new facilities. These are the interim improvements required in the Capital Improvements Plan. The City continues to make additional improvements beyond the initial assessments as part of the continual reevaluation and optimization of plant operations. During this quarter, the digestion portion of the solids handling process was a prime focus as repairs were completed for a primary digester which was returned to service. The annual review of the key components of the operations and maintenance plan was completed with priorities set for 2009.

16. Staffing Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 30, 2005.

17. Interim Wet Weather Operational Strategy - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 7, 2006. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

C. Long Term Evaluation and Construction Schedule

18. Treatment Plant Alternatives Submission – Completed. See below.

(a) Existing Plant Process Evaluation Report – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the selected liquid and solids treatment technologies.

Response received from PA DEP on May 23, 2006 acknowledging compliance.

(b) Evaluation of Treatment Alternatives Report – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006 and formal presentation of the report and findings conducted at March 21st meeting. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the selected liquid and solids treatment technologies. Response received from PA DEP on May 23, 2006 acknowledging compliance.

19. Capital Improvements Plan – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 16, 2007. Preliminary costs for biological treatment and solids handling facilities were developed as part of the plant and treatment alternatives report. Common facilities including headworks facilities, clarification, and disinfection are being included that were not required for the treatment alternative report. B&V is developing alternatives and cost estimates for wastewater routing between the 6th and Canal PS headworks and plant headworks as well as plant and pump station improvements required as a result with conservative cost estimates used for the submitted Capital Improvements Plan.

In the assessment of key processes for the Operations and Maintenance Plan, the City took action to eliminate bottlenecks and vulnerabilities as well as to evaluate and make cost-effective interim upgrades for performance improvements to the existing plant. This was previously submitted as part of the Operations and Maintenance Plan required by Paragraph 15. Additionally, the City continues to make improvements beyond the initial assessments as part of the continual reevaluation and optimization of the existing plant operations. This is ongoing with current update information noted above in Paragraph 15.

20. Request for Proposals – Completed. The City issued a request for qualifications (RFQ) for the implementation of the selected treatment alternative to identify design firms to be invited to submit a proposal in response to the City's request for proposals (RFP). City Council awarded the \$12,954,355 contract to Black & Veatch on March 24, 2008. The final contract was executed on June 23, 2008 with a retroactive effective date of March 25, 2008.

The City received proposals for WWTP upgrades project management (PM) and construction management (CM) on April 15, 2008. Following interviews and further clarifications, an award recommendation was submitted to City Council for consideration at their June 9, 2008 meeting. Council awarded the \$7,825,075 contract for both project management and construction management to the team of Hill International/Weston Solutions/Hazen and Sawyer (HWH&S) on September 8, 2008. An advanced notice to proceed was issued September 9, 2008 with the contract documents executed on November 11, 2008.

21. Permit Applications and Design –Ongoing. A summary of the progress reports received from B&V for the WWTP design preliminary engineering performed this quarter is attached. The City received, reviewed, and commented upon several technical submissions this quarter as discussed in the progress report. These included the Preliminary Engineering Report in advance of

conducting a full-week Value Engineering (VE) workshop. Additional technical clarification documents were requested to further assess and understand decisions and recommendations incorporated in the reports.

A progress report received from HWH&S for the WWTP PM tasks performed this quarter is attached. Much of their time has been spent reviewing the documents discussed above and leading the VE effort. Additionally, they are leading the financial and funding efforts for the WWTP project.

A separate contract for the WWTP survey was awarded to Bursich Associates with the work commencing during the first quarter in advance of the design contract award. The City conducted a coordination meeting with the design and survey firms and the firms have been communicating directly to achieve the deadline goals since then. This work was initially included in the WWTP design team's scope of work and has been problematic as a separate City contract with the work product used directly by the design team. One of the first tasks assigned to HWH&S as the PM was to evaluate and make a recommendation for action regarding this separate contract.

22. Permitting – Not applicable.

23. Construction Completion – No progress.

24. Start-Up and Operation – No progress.

D. Collection System

25. GIS Mapping System - In progress. See below.

(a) **Purpose of GIS System** - Not applicable.

(b) **GIS Mapping of the Sanitary Sewer Collection System** – In progress. The 2005 aerial photography of the collection system has been accepted following quality control checks by the City GIS Coordinator. With the assistance of City sewer team personnel, ATS Chester began field data collection in July, 2006. The initial phase for field data collection is the sanitary interceptors and force mains with phase two being the remaining sanitary structures. The GIS mapping follows each phase's data collection with submission to the City for review and approval. This quarter, the City a response from legal counsel following notification of the termination of their services and outstanding contractual obligations. During this quarter, the City also began updating the technical specifications in the prior RFP in preparation to issuing a new RFP for these services. The City may use the RFQ/RFP process due to the economic impact on the number of responses and the technical contents of the ATS Chester response letter.

(c) **GIS Mapping of the Storm Water Collection System** - In progress. The third phase for field data collection and GIS mapping is the storm water system. Many of the structures were collected while ATS Chester performed phases one and two data collection, however since the GIS mapping for the sanitary system precedes the storm water system mapping, this is not available in final form from ATS Chester's work. This will be included in the new GPS RFP discussed above.

26. Sanitary Sewer System Evaluation Program

(a) I/I Analysis by Subsystem

1. Baseline Flow and Rainfall – In Progress. The flow monitoring and data reduction have been completed by B&V for the I&I analysis. A draft report was submitted to the City for review and comment. Limited reliable data was available for the existing system and tributary populations. Draft prioritization of areas and predictions for peak flows were developed; however, data is being refined as new information is received. The hydraulic modeling of the interceptors is a key to re-evaluating priorities based on projected bottlenecks that may exist. The City has met with all of the satellite municipalities to gather information on current and future populations, I&I mitigation programs, and definition of tributary areas. In addition, the City has progressed with its program for data collection on the City's system through GPS mapping.

2. Hydraulic Modeling – In Progress. The City has reviewed its system configuration and limitations for consideration in the selection of a hydraulic model. Based on the complexity of the system, B&V recommended a dynamic model named InfoWorks. Upon the receipt of a final data delivery from the GPS consultant on December 24, 2007, B&V set up and began calibrating the model. The data received still contained numerous apparent inaccuracies including incorrect pipe diameters which negatively impacts the hydraulic modeling. A detailed review of the data received was done to determine the extent of problems to be expected during the detailed hydraulic modeling. A test run of the hydraulic model with this data yielded 2700 errors which keep the model from running. In addition, there were 1800 warnings and 8800 information messages. This preliminary model run with the GPS data confirmed the concerns about the data quality. *The City has concerns about the schedule for completing the modeling based upon the ongoing issues with the quality of data received from the GPS field verification. This task is dependent upon the GIS mapping discussed above.*

(b) Sewer System Evaluation Survey – In Progress. The process for the SSES was initiated with the flow monitoring program for the I&I analysis. The City worked with B&V to develop a manhole numbering system for the sanitary sewer system. A preliminary assignment of identifiers was made to manholes indicated on available historical mapping. The numbering system will be refined as the GPS field inventory is conducted and the City is able to resolve discrepancies found between record drawings and the actual infrastructure in the field. Although not explicitly required within the Consent Decree, the City has engaged B&V to develop a maintenance, operation and management (MOM) plan for the collection system in order to help set priorities and standardize operations of City sewer crews. The MOM plan is intended to serve as a guide for the

execution of the required SSES as well as ongoing future maintenance of the collection system. B&V has provided draft technical specifications for additional system evaluation to be conducted in accordance with the I&I report recommendations. The smoke testing RFP was advertised with proposals due August 14, 2008. Council awarded the contract on September 22, 2008. Due to the time preparing and executing final contract documents, work was unable to be initiated prior to the freezing of the ground.

27. Rehabilitation Plan – No progress. *The SSES is required to commence by May 7, 2008 while the dependent rehabilitation plan is due prior to the study on which it is based.*

28. Rehabilitation of Priority Areas of Collection System – No progress.

29. Wet Weather Operation Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 7, 2007. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

E. Pretreatment Program

30. General Duty – In progress. The City has an approved pretreatment program and continues to regulate industrial users in the collection system.

31. Enforcement Response Plan (ERP) Implementation – In progress. The City continues to follow the ERP in order to encourage compliance from all industrial dischargers. This is reported directly to US EPA with the quarterly compliance reports.

32. ERP - Penalty Escalation and Compliance Schedule – In progress. The City has been escalating penalties for all industries that are in significant non-compliance for a given parameter for two consecutive quarters. This is reported directly with the quarterly industrial pretreatment status reports to US EPA. The City will continue with this reporting method for the future.

33. ERP – Order, Permit Revocation, and Federal Referral – In progress. The City continues escalating the enforcement actions focusing on the financial penalties assessed to permittees who remain in significant non-compliance. The City continues issuing penalties for compliance issues that were not fined previously such as pH, late reports, late sampling, and late permit applications.

34. Local Limit Adoption by Contributing Municipalities – In progress. Most of the municipalities have adopted the City's sewer use ordinance providing permitting and enforcement abilities for the City with industrial users. All the municipalities with permitted industries have adopted the ordinance. US EPA provided the status from the 2005 audit listing the municipalities requiring ordinance adoption. This has been discussed with solicitors and directly with individual municipalities in question. Electronic versions of the City's sewer use ordinance have been provided to each municipality, engineer, and/or solicitor to prepare for adoption. The City has requested notification and proof of ordinance adoption be submitted. These are submitted to US EPA with quarterly reports upon City notification.

35. Non-Residential Connection Evaluation and Investigation – In progress. The City has been working with the contributing municipalities to obtain information in order to send a survey to evaluate nonresidential users that may be subject to the pretreatment program. This has been requested among other submissions from individual municipalities. This was also discussed with the municipal meetings conducted in 2007 and municipal field meetings conducted in 2008. The City will be requesting assistance from a consultant due to the large number of surveys and inspections required. The technical specifications for this RFP are under development.

36. Increased Monitoring for Violators – In progress. The City continues to increase City sampling and self-monitoring for frequent violators. In general, permits may be amended or re-issued requiring multiple resamples for parameters with prior compliance issues. Some permits require increased frequency of monitoring for multiple quarters of compliance prior to returning to a less frequent self-monitoring schedule. Additional monitoring by both the City and the industry is being tracked and reported to US EPA quarterly.

37. Pretreatment Computerized Management System - In progress and continuing. The City continues data entry into a commercial pretreatment database as well as an abbreviated spreadsheet upon receipt of analytical results from both City and industrial sampling.

38. Local Limits Re-Evaluation – Completed. Evaluation submitted to US DoJ and US EPA on May 5, 2006. Comments were received from US EPA and the City initially worked with B&V to address the comments and concerns. The City will be requesting assistance from a consultant to complete addressing the noted concerns due to timing. The technical specifications for this RFP are under development.

39. Quarterly SNC Reports to US EPA – In progress. The City continues to provide quarterly SNC reports to US EPA.

F. Funding

40. Funding – In progress. The 2009 budget was prepared and approved by City Council with the budgeted transfer amount remaining at \$3,000,000.

IX. CIVIL PENALTY

47. and 49. Penalty Amount and Payment Instructions – Completed.

X. SUPPLEMENTAL ENVIRONMENTAL PROJECTS: Angelica Stream Restoration

52. Details of SEPs listed below

- a) Background** - Not applicable.
- b) Goals of SEPs** - Not applicable.
- c) Removal of excess sediment and soil stabilization SEP** – Completed.
- d) Angelica Creek Restoration SEP** – Completed.
- e) Angelica Creek Riparian Buffer SEP** – Completed.
- f) Wetland Creation SEP** –Completed.
- g) Flood plain Meadow SEP** – Completed.
- h) Annual Maintenance and Access to SEPs** – Ongoing. Seasonal maintenance and mowing has begun.
- i) Design Costs and Final Plan** – Completed.
- j) Defendant Certification** – Not applicable.
- k) SEP Completion Report** – Completed. Report submitted to US DoJ, US EPA, and PA DEP on January 30, 2008 as part of the 4th calendar quarterly progress report.

The Angelica Environmental Park ribbon cutting ceremony was held on July 28, 2008.

Black & Veatch WWTP Design Engineering Progress Report Fourth Quarter 2008 Summary

Project Management

- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Coordinated efforts in the development of the Preliminary Engineering Report.
- Engaged project team in the development of the PER.
- Continued refinement of the baseline design schedule in Primavera.
- Provided City information on struvite and aeration basin mixing chimney concept.
- Conducted review of TM2 with City and developed listing of questions and concerns that were identified.
- Met with PM/CM team to review overall project scheduling.
- Met with PADEP, Pennvest, PM/CM, and the City to review project and conduct initial planning meeting for funding.
- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Coordinated efforts in the development of the presentation for the Preliminary Engineering Report Workshop.
- Updated the Trend Register.
- Participated in the PER Workshop with City and PM/CM.
- Continued refinement of the baseline design schedule in Primavera.
- Attended Meeting with City and PM on initial bond allocation.
- Met with City, PM, and Interstate Resources (Cedarpak) to discuss project status.
- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Coordinated efforts in the preparation of responses to the list of Potential Cost Savings from the VE Study.
- Updated the Trend Register.
- Submitted meeting minutes from the PER Workshop with City and PM/CM.
- Responded to letter from Anthony Vesay regarding the baseline design schedule.
- Provided forecasted invoicing schedule to PM as requested.

United Corrstack Expansion Support

- Continued development of Solids Handling Building layout to include separate thickening, dewatering, and chemical feed facilities for the industrial pretreatment facility solids.
- Incorporated separate thickening and dewatering equipment and facilities on the process and instrumentation diagrams (P&IDs) for the industrial pretreatment facility solids.
- At the direction of the City, reviewed sizing of pretreatment units and the ability to fit units on the industry's site.

Treatment Compatibility Testing

- Completed preparation of Technical Memorandum No. 1 for submittal to the City.
- Submitted draft Technical Memorandum No. 1 to the City.
- Updated Technical Memorandum No. 1 based on City comments.

Process Design Criteria

- Finalized the liquid and solids process design criteria for inclusion in the PER.
- Prepared Process Design Criteria presentation for PER Workshop.

Site Investigations

- Continued to review surveying data provided by surveyor contracted by City and provide comments and requests for additional information necessary for design.
- Met with PM to discuss status of survey data.
- Received direction to pursue subconsultant to perform surveying for the design efforts
- Met with subconsultant to review status of project survey data and to discuss scope items for potential contract extension with the City.
- Worked with new surveying subconsultant to review existing survey data to determine what is reusable.
- Coordinated scope of services for new surveying subconsultant at the request of the City.
- Provided FEMA information to surveyor to define 100 year flood plain.
- Continued working with new surveying subconsultant to review existing survey data to determine what is reusable.
- Continued to coordinate scope of services for new surveying subconsultant at the request of the City.
- Received title search info from City and coordinated with surveyor.
- Performed field survey of pipe markers installed by City and utilities.
- Initiated new surveyor's review of FEMA mapping.

Geotechnical Services

- Continued on-site geotechnical investigations and preparation of the draft subsurface exploration report.
- Coordinated geotechnical design criteria with geotechnical subconsultant.
- Began review of the Phase 1 geotechnical engineering draft report.
- Reviewed and provided comments to the draft geotechnical report from the geotechnical subconsultant.

Oil and Grease Receiving and Processing Facilities Evaluation

- Conducted conference call with the City to review and discuss TM-3.
- Submitted final TM 3.

Digester Gas and Sustainability Feasibility Analysis

- Completed Technical Memorandum No. 4 for submittal to the City.
- Submitted draft Technical Memorandum No. 4 to the City.

Preliminary Engineering Report

- Continued to develop the preliminary site plan.
- Continued development of the hydraulic profile for interim and final designs and for excess peak wet weather flow treatment.
- Continued evaluation of alternatives for conveying influent wastewater to the new Headworks Facility. The existing screenings and grit removal facility adjacent to KVP will be abandoned.
- Contacted City codes inspector and PADEP regarding non potable uses connected to potable water system.
- Conducted digester evaluation comparing conventional digesters with egg-shaped digesters.
- Conducted blower evaluation comparing single stage blowers with multi-stage blowers.
- Continued development of P&IDs for the process systems.

- Continued development of preliminary plan layouts for clarifiers, splitter boxes and aeration basins.
- Continued development of preliminary plan layouts for the Primary Treatment and Blower Control Building, RAS/WAS Pumping Station, and Effluent Pumping Station.
- Continued development of preliminary plan layouts for the Headworks Facility.
- Continued development of preliminary layouts for the Influent Pumping Station.
- Continued preliminary design and layouts for the UV Disinfection Building.
- Developed preliminary layouts for the post aeration basins.
- Continued preliminary plan layouts for the digesters and Digester Control Building.
- Continued preliminary plan layouts for the Solids Handling Building.
- Continued development of preliminary layouts for the primary sludge thickener and centrate equalization basin.
- Continued preliminary sizing of major process equipment.
- Prepared, reproduced and submitted Preliminary Engineering Report to City and PM/CM.
- Prepared, reproduced and submitted PER Drawings to City and PM/CM.
- Prepared presentation for the PER Workshop.
- Developed and submitted Preliminary Opinion of Construction Cost.
- Developed new plant outfall alternatives for PER Workshop presentation.
- Developed 6th and Canal information for PER presentation.
- Participated in plant tour with PM/CM.
- Participated in PER Workshop with the City and PM/CM.
- Developed and submitted digester comparison memorandum (TM 6).
- Evaluated multistage and single stage blowers
- Completed responses to Technical Memorandum 2 comment matrix
- Submitted Technical Memorandum 9 - Blower Evaluation
- Prepared and submitted Technical Memorandum No. 10 – Outfall Alternatives Evaluation per City's request.
- Worked on Technical Memorandum No. 14 – Polymer Feed Redundancy
- Worked on Technical Memorandum No 11 for Secondary Digester structural concerns
- Attended Microwave UV demonstration at the City's request

18th Ward Influent Sewer Alternatives Evaluation

- Prepared and submitted Technical Memorandum No. 7 to the City.

Value Engineering Support

- Prepared presentation for VE Study Team.
- Presented the PER presentation to VE Study Team on December 1.
- Met with VE Study Team on December 5 to receive VE Study Team's preliminary review comments.
- Provided responses to the list of Potential Cost Savings included in the VE Study Report.
- Met with the City and PM/CM on December 18 to further discuss the Potential Cost Savings.
- Began work on the further investigations of the Potential Cost Savings per the City's request.
- At the City's request, received and began reviewing modeling memo developed by Hazen Sawyer

Hill/Weston Solutions/Hazen & Sawyer
WWTP Upgrades PM/CM
Fourth Quarter 2008 Progress Report

Project Management (Hill):

- Attended several meetings with the client, including a financial kickoff meeting with the City as well as an initial PennVest funding meeting with PennVEST and DEP. Participated in several weekly project update meetings with the client.
- Surveying Issue: Finalized a recommendation to the client. Participated in a follow-up briefing to City Council. Began review of Bursich invoice; waiting for final invoice from Bursich before making final payment recommendation.
- Continued reviewing client provided project documentation
- Conducted a Hill/Weston/Hazen-Sawyer Principal's coordination meeting; verified project assignments and responsibilities and communication flow. Continued work on internal project administration systems.
- Continued communication with Black & Veatch; received the design baseline schedule and began drafting comments.
- Continued working on our contract with the client for PM/CM Services; developed scope of work for Hill and subconsultants.
- Attended several update meetings with the client as well as a follow-up financial meeting with the City; additionally, attended a follow-up PennVEST meeting and a meeting to review the Inter-Municipality Agreement.
- Made a final payment recommendation to the client reference the Surveying/Bursich Issue.
- Continued reviewing project documentation (i.e. Technical Memorandum #2, PER, etc).
- Conducted a monthly Hill/Weston/Hazen-Sawyer Principal's coordination meeting.
- Continued communication with Black & Veatch; received the PER Cost Summary Report; prepared for and attended the PER Workshop.
- Participated in a plant tour hosted by the City.
- Published TM#2 comments matrix.
- Met with United Corrstack official concerning expansion project and permit limits.
- Coordinated with the financial consultant concerning the accounting model.
- Prepared a final draft report on B&V's baseline design schedule.
- Conducted several VE coordination meetings with the team as well as the client, most notably where final coordination was made for the December VE workshop.
- Provided a final VE agenda and timeline.
- Finalized contract with the client for PM/CM services; finalized scope of services matrix and issued draft contracts to subconsultants.
- Attended several update meetings with the client. Topics included Value Engineering (VE), Preliminary Engineering Report (PER), draw down schedule, peer review comments matrix and a status of the various technical memoranda (TMs).
- Attended the VE workshop and implementation meeting.
- Participated in several VE coordination meetings; coordinated comments and results.
- Reviewed various PM information documents including work flow and filing schemes.
- Reviewed and published the draw down schedule for the initial \$30 million bond.
- Coordinated and reviewed VE and peer review comments; published a draft VE report.
- Continued reviewing project documentation.

- Reviewed the project web site for format and content, explored options as to implementation.
- Continued team communication with all associated parties.
- Continued subconsultant contract development. Several were finalized and signed during this period.

Project Controls (Hill):

- Continued development of the Project Management Information Systems (PMIS) plan.
- Continued reviewing B&V design baseline schedule; began working a draft comments letter to the client.
- Updated project schedule tasks, resources, and costs for the PM/CM component.
- Continued evaluating software options for three primary PM/CM requirements: project schedule/cost control, CM process control and document control/virtual file storage.
- Continued work on PMIS system; developed billing report and control procedures.
- Began work on a projected cash flow analysis.
- Continued work on designer's baseline schedule.
- Continued work on the PMIS; developed a billing report and control procedures.
- Developed the draw down schedule.
- Designed and posted a project web site.
- Issued PMIS software logins.
- Continued work on designer's baseline schedule.

Cost Estimating (Weston):

- Provided cost estimating in support of the VE effort.

Value Engineering (Lewis and Zimmerman; also see PM bullets):

- Conducted several VE coordination meetings with the team as well as the client.
- Provided a draft VE agenda and timeline.
- Received PER and cost summary; reviewed documents and participated in a conference call with VE participants.
- Prepared for December VE workshop.
- Facilitated the December VE workshop; reviewed and incorporated comments from the workshop.
- Responded to and answered various questions in reference to the workshop.
- Coordinated and issued the final VE report.

Design Review/Tech Support (Hazen-Sawyer):

- Attended meeting with Hill and B&V to discuss the options for acquiring and uploading Project Schedule to Primavera P6.
- Corresponded with various team members regarding review of B&V documents.
- Received copies of TM 2, TM 3 and TM 5 for review. Documents were disseminated to peer reviewers.
- Received copies of the Preliminary Engineering Report and plans. The documents were copied and disseminated to peer reviewers.
- Corresponded with various team members regarding review of B&V documents both VE and peer review. Began receiving and compiling peer review comments.
- Attended project principals meeting with Hill and Weston.
- Attended plant tour including 6th & Canal Pumping Station.
- Prepared comment response spreadsheet for TM 2.

- Reviewed B&V project schedule and provided comments.
- Participated in pre-VE workshop.
- Participated in conference call with VE facilitator.
- Received copies of TM 6 and TM 7. Documents were disseminated to peer reviewers.
- Corresponded with various team members regarding review of B&V documents -VE and peer review. Continued to receive and compile peer review comments.
- Participated in the VE workshop.
- Prepared supplemental information to the VE workshop.
- Attended VE implementation meeting with Owner and B&V.
- Developed a BioWin model of the proposed Fritz Island WWTP and configured the model based on the design information included in the PER.
- Submitted a review of the liquid process based on the results of the BioWin model.
- Participated in conference call with VE facilitator.
- Received copies of the blower comparison letter and outfall alternatives letter. Documents were disseminated to peer reviewers.

Regulatory Compliance: N/A

Grant Funding (DMGA):

- Held a financial kickoff as well as a follow-up meeting with the City.
- Conducted grant funding research—PennVEST, H2O PA; reviewed grant RFP forwarded from Reading.
- Prepared Summary of Alternative Energy Act as it pertains to the City.
- Prepared for and met to review and interpret the Inter-Municipality Agreement from Client
- Conducted research and met with PennVEST in Harrisburg; sent follow-up letter.
- Had a telephone conversation with DCED regarding H2O PA Act funding
- Participated in various calls and meetings in support of the project including status updates, H2O PA Act funding, PennVEST and others.
- Conducted research on PennVEST funding.
- Prepared and forwarded summary of Water and Sewer Systems Assistance Program (Act 64 of 2004).
- Prepared and forwarded a summary of Alternative Energy Act as it pertains to the project.
- Participated in several meetings with the client, PennVEST and DEP.

Financial Analysis (PFM):

- Received Inter-Municipality Agreement from Client; began document review and continued coordination with respective City officials. Began receiving historical water/sewer budget data.
- Attended financial kickoff meeting.
- Received and reviewed 10 years audited statements and budgets from the City finance department
- Meet with City finance department to begin reviewing audits and budgets for the base information needed for the financial model tracking contributions to the “Capital Reserve Fund”
- Began to design preliminary financial model.
- Continued work on the financial model.

- Coordinated with City representatives to obtain needed historical financial data including audited financial statements and participant-specific usage, rate and capital reserve contribution figures.

Public Relations: N/A

Surveying: N/A

Construction Management (primarily Weston):

- Attended project kickoff meeting with the client, Hill International and Hazen & Sawyer.
- Reviewed client provided project documentation including Consent Decree, Preliminary Engineering Report (PER) and various technical memorandums.
- Attended a Hill/Weston/Hazen-Sawyer kickoff meeting; verified project assignments and responsibilities and communication flow. Began establishing project administration systems.
- Attended 2nd team meeting and reviewed contract, scope matrix, web-based controls systems, and project invoice requirements
- Reviewed B&V project schedule and PER workshop agenda and participated in conference call to discuss PER agenda and workshop
- Set up web based work site, "TeamLink", for use as file storage system; at a later date the team decided that the Sharepoint site would be more beneficial to the project and agreed to abandon the TeamLink site
- Reviewed software options for three primary PM/CM requirements: project schedule/cost control, CM process control and document control/virtual file storage.
- Reviewed the B&V cost estimate in preparation for the VE workshop.
- Reviewed project documents, including PER, and attended site tour in preparation for the December VE workshop.
- Coordinated VE review team with team members; VE participants reviewed documents including PER in preparation for the VE workshop.
- Attended PER workshop.
- Attended the VE workshop and implementation meeting #1; completed various general CM Tasks in support of the VE effort.

Resident Engineer: N/A

Inspection: N/A

Health and Safety: N/A

Start-up: N/A

Additional Items related to Consent Decree

Personnel

Operator Certification – In 2005, the City administration supported management in both water and wastewater during AFSCME contract negotiations. Personnel in certain rank and file positions are given 24 months in which to pass the appropriate certification exams. New hires or transfers into operations are advised of the certification need initially and given materials to read and review as part of their orientation and training. Based on the AFSCME contract language, July 15, 2007 was the initial date for employees who were in operational positions 24 months ago to be required to be certified. From there, new employees' certification requirements are being tracked based on their position start date. The positions requiring certification are Fritz Island Operator (Plant Operator), Pump Tender, and Belt Filter Press Operator (Solids Operator). The first two positions each have four people to provide continual coverage while the last position currently has two people providing two shifts weekdays and weekend coverage as needed. The current AFSCME contract allows some additional flexibility related to uncontrollable changes in certification requirements due to process changes or regulatory changes. During the fourth quarter, there were no personnel transfers in these positions. The following table shows the updated certification status of the rank and file employees in the positions requiring certification.

Position	PA DEP Certification
Plant Operator - Day	A,E - 2,3,4
Plant Operator - Evening	A,E - 2,3,4
Plant Operator - Night	E - 4 Passed exam A – 2
Plant Operator - Rotating	Passed exam A,E -2,4 Awaiting Board
Pump Tender – Day	Passed exam A,E -2,4 Awaiting Board
Pump Tender - Evening	A,E - 2,4
Pump Tender - Night	E - 4 Passed exam A – 2
Pump Tender – Rotating	E - 4 Due 07/16/2009
Solids Operator - Day	Due 06/16/2010
Solids Operator - Evening	E - 4 Passed exam A – 2

Operations and Maintenance

19th Ward PS Monitoring –The chart recorder is a daily chart per the recommendations of the hydraulic engineer studying the site. This is to enhance the ability to review pump operations during adverse conditions. Additionally, the secondary wet well level sensor that controls the pumps under high flow conditions has a separate chart recorder added for monitoring. This is being used to monitor the duration of any future overflows from this station. The system showed no overflows occurred during this quarter which was verified by operations staff performing routine inspections. This monitoring evaluation will continue as field-verified levels for potential overflows are determined. This quarter, oil and grease problems recurred sporadically with ongoing investigation by plant, system, and pretreatment

personnel as well as the contributory municipalities. A task force was formed to develop a response plan and related SOPs as well as a plan for connection point monitoring.

Computerized Maintenance Management System (CMMS) for Collection System– To adequately perform and document an ongoing infiltration and inflow program, catalog televisual inspection, and track service calls and repairs in the collection system, the City determined the need for a formal method to catalog the information. Geographical documentation of this information was the selected method for the database structure. The City has a static database of City information Woolpert has prepared for testing and training purposes. Woolpert made modifications to incorporate the existing work order format, priority, and assignment. Recurring safety and administrative functions are being incorporated into the existing CMMS and will be migrated into this software. Ultimately, this software is planned to be used in much of the Public Works Department.

A faster communication speed to City Hall servers is required to run the software efficiently as viewing the static database is rather challenging to our communication system. During the fourth quarter, Public Works began exploring using existing utility services and wireless options. A technology firm has been contacted and information shared to develop a proposal to facilitate a review of communication alternatives and to develop pricing, feasibility, and comparison of the options for a selection and implementation.

42" Force Main and WWTP Influent Routing – Following the force main break discovered on January 10, 2008, a summary report in response to the PA DEP notice of violation for this January incident was sent to all parties identified in the Consent Decree. For this reason, this is not included in this quarterly report. During the second quarter, the City paid the \$5640 fine requested by PA DEP to reimburse their expenditures as a result of the incident. The City proposed a counter to the \$10,000 fine request received from the PA Fish and Boat Commission and in the third quarter received a counterproposal for a fine of \$5,000 and a modified agreement for review. This agreement was review and will be signed with the fine submitted.

A formal response plan has been started to reduce the impact in the event of a similar recurrence despite all preventive efforts.

A meeting was conducted with a developer desiring to develop the riverfront area in Reading surrounding the Sixth and Canal pump station. B&V submitted a feasibility study to compare the options and their associated costs. This has been reviewed by the City and the PM/CM team. Due to the impact on the WWTP design hydraulics, this must be addressed shortly so as to not impact the design and construction schedule for the WWTP. This topic will be discussed with City Council as soon as the technical comments are addressed.

Laboratory and Administration

Land and Building – The City purchased a parcel of land in 2005 adjacent to the wastewater treatment plant to be used for the construction of a new building for the administration and the laboratory. The City purchased a second adjacent parcel in March 2007. The City has contracted and completed a feasibility study and property survey for the proposed building needs, layout, and site work. On November 21,

2008, the City received 18 civil engineering proposals and 14 architectural services proposals and distributed them to the selection committee. The technical proposals were rated awaiting the opening of the price proposal. Interviews and selection will follow. The City will develop a separate RFP for a third party commissioning agent as required for LEED certification.

Administrative

Contributing Municipalities - The City and B&V met individually with the municipalities that contribute flows to the City's wastewater system and plant to provide background information and the City's current status including technical information related to the Consent Decree requirements. Also, the City wanted to obtain current status of flow projections and I&I reduction efforts. Some municipalities and authorities had their own staff or officials in addition to the appropriate engineers. In addition to the Consent Decree requirements for plant upgrades and system projects, the need for municipal adoption of the City's sewer use ordinance was discussed as well as the need for ongoing communication regarding non-residential customers both being related to the industrial pretreatment program. Finally, the process to be followed when planning for new development and the use of PA DEP planning modules were discussed as well. Intermunicipal agreements are being reviewed briefly as they are a shorter duration than what is used for planning purposes for the capital improvements plan. Field meetings were conducted in the spring and summer of 2008 to inspect each connection point, metering location, and terminal pumping stations to the City system as well as available mapping for the system. This information is being used to develop more accurate service area mapping by connection point. Follow-up meetings have been conducted to view interconnection points between contributing municipalities and additional information requests have been made based upon the findings of each meeting.

Funding - Since the internal City customers' sewer bills are dependent upon the metered water consumption, City Council discussed an independent utility analysis of both the wastewater and water utility funds and inter-related financial operations due to the significant implications. Some key aspects of this funding clarification were added to the RFP for the WWTP project management team discussed above in paragraph 20. This forensic review is an initial task by the PM with details listed in their above report.

Response Times and Clarifications – The City continues to work in good faith on compliance issues outlined within the Consent Decree. There is concern regarding delays in regulatory responses for questions posed during meetings or within progress reports. As investigative field work in the collection system intensifies, previously identified concerns regarding timeline discrepancies within the Consent Decree become more evident. Clarification will be critical to allow the City to balance the allocation of resources in efforts to maintain compliance.

PA DEP Meetings – Following the City Council award of the WWTP design contract to Black & Veatch, the City, B&V, and PA DEP met to discuss the project on April 28, 2008. Following a history of events for those new to the Reading situation, technical design, financial, and permitting issues were discussed. A separate meeting with the design engineer followed on May 15, 2008 to discuss

particular issues with the construction permit submittal. PA DEP participated in an October 31, 1008 PennVEST meeting regarding funding. PA DEP provides the technical support to PennVEST for the state revolving loan fund for low interest infrastructure financing.

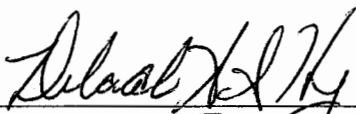
NPDES Permits and Limits – The NPDES permit renewal has not been received despite the permit expiration on May 1, 2006. Draft limits by one MGD increments have been provided for design purposes but a draft permit has not been received to date. During the discussion following the application, the reduction of permit limits by PA DEP seemed to be a forgone conclusion despite having a Consent Decree report stating the existing plant is unable to meet the limits consistently. The City would propose the concept of an extension of existing permit limits or interim limits during the construction phase until the new facilities are on-line. During a meeting in May 2008, the permit writer explained PA DEP's policy to not renew an operating permit for a facility known to be undergoing an expansion or upgrade.

VI. REPORTING REQUIREMENTS

41. Report Contents and Certification

- (a) **Remedial Measures Paragraphs 7 through 40** – See above numbered sections.
- (b) **Anticipated Problems** – See italics in above numbered sections.
- (c) **Additional Matters** – See italics in above unnumbered sections.
- (d) **Certification Statement** –

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted, is to the best of my knowledge and belief, true, accurate, and complete.



Deborah A.S. Hoag, P.E.
Utilities Division Manager

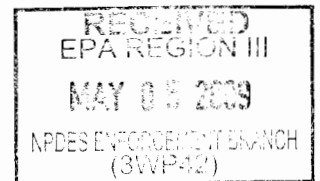
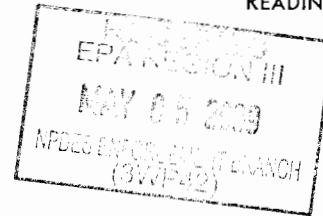
01/30/2009
Date



PUBLIC WORKS
DEPARTMENT

CITY OF READING, PENNSYLVANIA

ENVIRONMENTAL DIVISION
815 WASHINGTON STREET
READING, PA 19601-3690



April 30, 2009

Ms. Margaret L. Hutchinson, Esq.
Assistant United States Attorney
Civil Division Eastern District of Pennsylvania
615 Chestnut Street
Suite 1250
Philadelphia, PA 19106-4476

Re: City of Reading Consent Decree
Calendar Quarterly Progress Report
1st Quarter 2009

Dear Ms. Hutchinson:

In accordance with Section VI Reporting Requirements, Paragraph 41, you will find enclosed the City of Reading's Calendar Quarterly Report. This documents progress and status on the implementation of Section V Remedial Measures described in Paragraphs 7 through 40. Please feel free to contact me at 610-655-6258 should you have any comments or questions.

Sincerely,

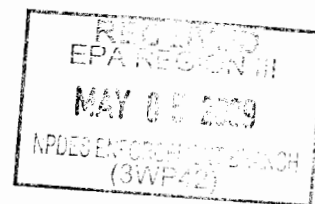
Deborah A.S. Hoag, P.E.
Utilities Division Manager

DH/eh

Cc: Christopher A. Day, Esq., US EPA
Lisa Trakis, US EPA
Lee McDonnell, PA DEP
Shawn Arbaugh, PA DEP
Charles M. Jones, P.E., Director of Public Works
Ralph E. Johnson, Superintendent
Stephen K. Hydro, P.E., Black & Veatch
Anthony C. Vesay, P.E., Hill International
Keith Mooney, Esq., Legal Counsel
file



**City of Reading Consent Decree
Calendar Quarterly Progress Report
Period Ending March 31, 2009**



V. REMEDIAL MEASURES

A. General Duties

7. Duty to Comply with Permit – In progress. The City's wastewater treatment plant had no NPDES permit violations during this quarter.

8. Operation and Maintenance of the Facility – In progress. The City continues work formalizing and documenting the operational and maintenance procedures related to the treatment plant, pump stations, collection system, and laboratory.

B. Interim Measures

9. Interim Compliance – Environmental Management System

(a) Submission – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. *The City awaits a response for the approval of the system and its components listed below as proposed.*

(b) Maintenance Management System - Continuing progress. The City continues the planned implementation of improved and expanded use of the Antero computerized maintenance management system. This ongoing increased use of the maintenance management system includes recurring work orders for maintenance upon discovery of the unaddressed cause of any problem. The use of this system is treated as an ongoing tool for the facilities' operations and maintenance. The wastewater treatment plant will migrate to the new CMMS being developed for the collection system due to the interrelated operations and maintenance activities.

(c) Supervisory Control and Data Acquisition (SCADA) system

1. Interim SCADA System – Completed and certified.

2. Upgrades to SCADA System – Not applicable. Upgrades not required based upon the submission and approval of paragraph 18. While not required by the Decree, the City continues progress with this operational tool in planning for the future plant improvements and ensuring operational consistency. Black & Veatch (B&V) has been retained to oversee the SCADA development for consistency and the development of standards and conventions for future use in the plant upgrades. Additional operational parameters continue to be added to the SCADA system. Select existing screens have been modified for operational and visual consistency and modifications to additional screens are planned. Troubleshooting is on-going regarding infrequent automated control program glitches, report generation, and historical trending. The City has worked with B&V to develop the target enhancements to address this year with the existing SCADA system alarm annunciation and history, security, program documentation, and hardware and software upgrades. Finally, options to utilize the SCADA system as a reference tool have

continue to be explored and enhanced for improvements to facility operations and maintenance.

(d) Pretreatment Data Management System – Continuing progress.

The City continues the ongoing data entry into a commercial pretreatment database as well as an abbreviated spreadsheet as analytical results are received from both City sampling and industry self-monitoring.

10. Interim Plant Influent Monitoring – Completed and continuing as required.

The City compares two meters on the force main from the Sixth and Canal pump station (6&C PS) to the WWTP. One is close to the 6&C PS while the other is at the WWTP. Previously, the City had used the meter at the WWTP for the influent loading calculation. The City investigated the 42" force main routing for any causes of disparity in metering. Due to the age (1959) and condition of the primary device associated with the WWTP meter, the newer, non-invasive 6&C PS flow meter has been used from this point and investigations on flowmeter accuracy will be done retrospectively. Beginning with the 2009 annual report to PA DEP, this calculated data absent recycle loads will be used for influent load comparisons for annual reporting. This will continue until this is no longer required due to physical changes to the influent lines.

As part of the influent monitoring, the City monitors the recycle flows as calculated from this influent load and the WWTP influent with recycles. A team has been created to evaluate and resolve questionable WWTP recycle loading data. This team has been assessing sample and flow data to determine the cause for what appears to be erroneous WWTP recycle data. A flow meter was added and sampling locations and techniques are being compared to assure representative samples are collected. Trending and comparisons to plant maintenance schedules have been determined to be part of the disparity and the team is continuing to investigate other influences. Results of this ongoing assessment will be available in a future report.

11. Interim Trickling Filter Performance Measures – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for trickling filter continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

(a) Performance Improvements – Completed and ongoing as part of the Operations and Maintenance plan using the Computerized Maintenance Management System.

(b) Unit Efficiency Monitoring Recirculation Rate – Completed.

(c) Recirculation Rate - Completed with flow monitoring continuing for the primary recirculation. Since the identification of available piping, secondary trickling filter recirculation has been in continual use. The combined recirculation was increased to 75% with marked improvements in the biological growth noted on the secondary trickling filters. City staff has made physical modifications to improve the flow metering for the secondary recirculation rate.

(d) Longer Term Monitoring and Reporting – Completed and continuing with modified locations as approved.

12. Process Control Testing – Completed and continuing as required. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for treatment units' continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

13. Dangerous Gas Detection – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Inspection and calibration are being done routinely and repairs are made when noted upon inspection.

14. Certified Plant Operators – The City currently has six shift supervisors who are assigned in categories as follows: day, evening, night, and rotating shifts, operational maintenance, and administrative. The supervisors began continuous coverage on November 1, 2006 as scheduled. To ease the tracking of licensed employees for the facility, a table has been developed for the facility's shift supervisors, and related City management staff. The facility currently requires a PA DEP Class A-2 for the plant and an E-4 for the collection system. These dual certification requirements have been extended to appropriate plant staff as they are also responsible for the pump station in the collection system. Shift supervisors, by virtue of their written job description, are required to pass the appropriate certification examination within twelve (12) months of hire or promotion into the position and all have done so. Most of the shift supervisors are new to the wastewater field. As a result, they are required to obtain the requisite operating experience prior to being issued their certification. During the first quarter of 2009, there were no changes with shift supervisors. All shift supervisors have received the appropriate PA DEP operator certification as detailed in the table below.

Employee	Title	PA DEP Certification
Charles M. Jones, P. E.	Director of Public Works	A,E – 1,2,3,4
Deborah A. S. Hoag, P. E.	Utilities Division Manager	A,E – 1,2,3,4
Ralph E. Johnson	Wastewater Superintendent	A,E – 1,2,3,4
Roger D. Hillibush	Operations Supervisor	A,E – 1,2,3,4
Russell L. Stoudt	Maintenance Supervisor	A,E – 1,2,3,4
Jackie C. Hendricks	Environmental Program Coordinator	A,E – 2,3,4
Amy L. Morriss	Laboratory Supervisor	A,E – 1,2,3,4
John P. Farrier	Systems Superintendent	E - 4
Gregory R. Fetter	Shift Supervisor – Operational Maintenance	A,E – 1,2,3,4
Robert E. Gensemer	Shift Supervisor - Administrative	A,E – 2,4
George E. Fultz, II	Shift Supervisor – Day	A,E – 2,4
Felix V. Stacherski	Shift Supervisor – Evening	A,E – 2,4
Daniel J. Dixon	Shift Supervisor – Night	A,E – 2,4
Roger R. Spitler	Shift Supervisor – Rotating	A,E – 1,2,3,4

The selected treatment alternative, as approved under Paragraph 18, requires an A-1 certification which is not currently required for the existing treatment plant. Most managers already possess this certification and some of the shift supervisors

have studied and taken the activated sludge module in advance of the construction to be prepared for the plant's transition from trickling filters to activated sludge. Additionally, the City has been discussing flexibility with the certification wording with the AFSCME local representing first level supervisors so that changes in technology or certification requirements do not require additional contract negotiations. *As discussed in the March 21, 2006 meeting (and the July 10th telephone conference), the new supervisory employees do not have specific wastewater experience prior to their hire but are required to pass the certification exam within twelve months of hire. PA DEP certification experience and training requirements do not allow the issuance of the operator certification based solely on the passing of the examination. Alternate language was proposed due to the difficulty recruiting already certified personnel to fill these positions and the timing required to obtain certification to provide the level of staffing required. The City suggests changing from "individual shall be required to obtain certification within 12 months of the date of hire" to "individual shall be required to pass the certification examination within 12 months of the date of hire" While this is no longer an issue with the current supervisors, the City still awaits the formal response regarding the proposed alternate language in the event of a change in personnel.*

15. Operations and Maintenance Plan - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. *The City awaits a response for the approval of the plan and its components listed as proposed.* Progress continues with future planned activities as discussed in the submitted plan. In the assessment of key processes, the City took action to eliminate bottlenecks and vulnerabilities to improve the performance of the existing plant. This was done as a necessary step to ensure regulatory permit compliance until the construction and start-up of the new facilities. These are the interim improvements required in the Capital Improvements Plan. The City continues to make additional improvements beyond the initial assessments as part of the continual reevaluation and optimization of plant operations. During this quarter, the digestion portion of the solids handling process was still a prime focus. In the fourth quarter of 2008, repairs were completed for a primary digester which was returned to service. This quarter, the biogas production and corresponding biogas reuse and waste gas flare systems received both operations and maintenance attention. Also in the first quarter, operational focus was given to preparations for the reduced summer permit limits that are effective in May. The chemical treatment for unwanted biological growth was started so that the desired physical tank cleaning and inspections could also occur prior to the permit limits changing.

16. Staffing Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 30, 2005.

17. Interim Wet Weather Operational Strategy - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 7, 2006. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

C. Long Term Evaluation and Construction Schedule

18. Treatment Plant Alternatives Submission – Completed. See below.

(a) Existing Plant Process Evaluation Report – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the selected liquid and solids treatment technologies. Response received from PA DEP on May 23, 2006 acknowledging compliance.

(b) Evaluation of Treatment Alternatives Report – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006 and formal presentation of the report and findings conducted at March 21st meeting. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the selected liquid and solids treatment technologies. Response received from PA DEP on May 23, 2006 acknowledging compliance.

19. Capital Improvements Plan – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 16, 2007. Preliminary costs for biological treatment and solids handling facilities were developed as part of the plant and treatment alternatives report. Common facilities including headworks facilities, clarification, and disinfection are being included that were not required for the treatment alternative report. B&V prepared alternatives and cost estimates for wastewater routing between the 6th and Canal area and the WWTP as well as plant and pump station improvements required as a result. This was presented to City Council for their consideration and decision. Additional investigative work is being done in preparation for updating the estimates and a public meeting prior to Council decision. Until a decision is made, the design efforts for the headworks of the WWTP are on hold.

In the assessment of key processes for the Operations and Maintenance Plan, the City took action to eliminate bottlenecks and vulnerabilities as well as to evaluate and make cost-effective interim upgrades for performance improvements to the existing plant. This was previously submitted as part of the Operations and Maintenance Plan required by Paragraph 15. Additionally, the City continues to make improvements beyond the initial assessments as part of the continual reevaluation and optimization of the existing plant operations. This is ongoing with current update information noted above in Paragraph 15.

20. Request for Proposals – Completed. The City issued a request for qualifications (RFQ) for the implementation of the selected treatment alternative to identify design firms to be invited to submit a proposal in response to the City's request for proposals (RFP). City Council awarded the \$12,954,355 contract to Black & Veatch on March 24, 2008. The final contract was executed on June 23, 2008 with a retroactive effective date of March 25, 2008.

The City requested proposals for WWTP upgrades project management (PM) and construction management (CM). City Council awarded the \$7,825,075 contract for both PM and CM to the team of Hill International/Weston Solutions/Hazen and Sawyer (HWH&S) on September 8, 2008. The final contract was executed on November 11, 2008 with a retroactive effective date of September 9, 2008..

21. Permit Applications and Design –Ongoing. A summary of the progress reports received from B&V for the WWTP design performed this quarter is attached.

A progress report received from HWH&S for the WWTP PM/CM tasks performed this quarter is attached. Additionally, they are leading the financial and funding efforts for the WWTP project.

A separate contract for the WWTP survey was awarded to Bursich Associates with the work commencing during the first quarter of 2008 in advance of the design contract award. This work was initially included in the WWTP design team's scope of work and has been problematic as a separate City contract with the work product used directly by the design team. One of the first tasks assigned to HWH&S as the PM was to evaluate and make a recommendation for action regarding this separate contract. The City has requested B&V to proceed with this added to their scope while the City proceeds to resolve any outstanding financial and legal issues with the initial separate survey contract.

22. Permitting – Not applicable.

23. Construction Completion – No progress.

24. Start-Up and Operation – No progress.

D. Collection System

25. GIS Mapping System - In progress. See below.

(a) **Purpose of GIS System** - Not applicable.

(b) **GIS Mapping of the Sanitary Sewer Collection System** – In progress. The 2005 aerial photography of the collection system has been accepted following quality control checks by the City GIS Coordinator. With the assistance of City sewer team personnel, ATS Chester began field data collection in July, 2006. The initial phase for field data collection is the sanitary interceptors and force mains with phase two being the remaining sanitary structures. The GIS mapping follows each phase's data collection with submission to the City for review and approval. This quarter, the City's legal counsel was able to reach an amenable agreement with ATS Chester. This has not been executed but will require the City to begin fresh and not reuse any ATS Chester data in our possession. During this quarter, the City also began updating the technical specifications in the prior RFP in preparation to issuing a new RFP for these services. The City will use an expedited RFQ/RFP process for selection.

(c) **GIS Mapping of the Storm Water Collection System** - In progress. The third phase for field data collection and GIS mapping is the storm water system. This will be included in the new GPS RFP discussed above.

26. Sanitary Sewer System Evaluation Program

(a) **I/I Analysis by Subsystem**

During this quarter, B&V submitted a final draft I&I report for the City's review and comment. Also, the parties met to discuss scheduling and coordination for the collection system investigative, mapping, modeling, and rehabilitative work.

1. Baseline Flow and Rainfall – In Progress. The flow monitoring and data reduction have been completed by B&V for the I&I analysis. A draft report was submitted to the City for review and comment. Limited reliable data was available for the existing system and tributary populations. Draft prioritization of areas and predictions for peak flows were developed; however, data is being refined as new information is received. The hydraulic modeling of the interceptors is a key to re-evaluating priorities based on projected bottlenecks that may exist. The City has met with all of the satellite municipalities to gather information on current and future populations, I&I mitigation programs, and definition of tributary areas.

2. Hydraulic Modeling – In Progress. The City has reviewed its system configuration and limitations for consideration in the selection of a hydraulic model. Based on the complexity of the system, B&V recommended a dynamic model named InfoWorks. Upon the receipt of a final data delivery from the GPS consultant on December 24, 2007, B&V set up and began calibrating the model. The data received still contained numerous apparent inaccuracies including incorrect pipe diameters which negatively impacts the hydraulic modeling. A detailed review of the data received was done to determine the extent of problems to be expected during the detailed hydraulic modeling. A test run of the hydraulic model with this data yielded 2700 errors which keep the model from running. In addition, there were 1800 warnings and 8800 information messages. This preliminary model run with the GPS data confirmed the concerns about the data quality. *The City has concerns about the schedule for completing the modeling based upon the ongoing issues with the quality of data received from the GPS field verification. This task is dependent upon the GIS mapping discussed above.*

(b) Sewer System Evaluation Survey – In Progress. The process for the SSES was initiated with the flow monitoring program for the I&I analysis. The City worked with B&V to develop a manhole numbering system for the sanitary sewer system. A preliminary assignment of identifiers was made to manholes indicated on available historical mapping. The numbering system will be refined as the GPS field inventory is conducted and the City is able to resolve discrepancies found between record drawings and the actual infrastructure in the field. Although not explicitly required within the Consent Decree, the City has engaged B&V to develop a maintenance, operation and management (MOM) plan for the collection system in order to help set priorities and standardize operations of City sewer crews. The MOM plan is intended to serve as a guide for the execution of the required SSES as well as ongoing future maintenance of the collection system. B&V has provided draft technical specifications for additional system evaluation to be conducted in accordance with the I&I

report recommendations. The smoke testing contract was awarded by City Council on September 22, 2008. Due to the time preparing and executing final contract documents, work was unable to be initiated prior to the freezing of the ground. This schedule was discussed this quarter with the work to be done late spring into early summer following the typical rainy season. The smoke testing as well as other field investigative work is weather dependent.

27. Rehabilitation Plan – No progress. *The SSES is required to commence by May 7, 2008 while the dependent rehabilitation plan is due prior to the study on which it is based.*

28. Rehabilitation of Priority Areas of Collection System – No progress.

29. Wet Weather Operation Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 7, 2007. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

E. Pretreatment Program

30. General Duty – In progress. The City has an approved pretreatment program and continues to regulate industrial users in the collection system.

31. Enforcement Response Plan (ERP) Implementation – In progress. The City continues to follow the ERP in order to encourage compliance from all industrial dischargers. This is reported directly to US EPA with the quarterly compliance reports.

32. ERP - Penalty Escalation and Compliance Schedule – In progress. The City has been escalating penalties for all industries that are in significant non-compliance for a given parameter for two consecutive quarters. This is reported directly with the quarterly industrial pretreatment status reports to US EPA. The City will continue with this reporting method for the future.

33. ERP – Order, Permit Revocation, and Federal Referral – In progress. The City continues escalating the enforcement actions focusing on the financial penalties assessed to permittees who remain in significant non-compliance. The City continues issuing penalties for compliance issues that were not fined previously such as pH, late reports, late sampling, and late permit applications.

34. Local Limit Adoption by Contributing Municipalities – In progress. Most of the municipalities have adopted the City's sewer use ordinance providing permitting and enforcement abilities for the City with industrial users. All the municipalities with permitted industries have adopted the ordinance. US EPA provided the status from the 2005 audit listing the municipalities requiring ordinance adoption. This has been discussed with solicitors and directly with individual municipalities in question. Electronic versions of the City's sewer use ordinance have been provided to each municipality, engineer, and/or solicitor to prepare for adoption. The City has requested notification and proof of ordinance adoption be submitted. These are submitted to US EPA with quarterly reports upon City notification.

35. Non-Residential Connection Evaluation and Investigation – In progress. The City has been working with the contributing municipalities to obtain information in order to send a survey to evaluate nonresidential users that may be subject to the pretreatment program. This has been requested among other submissions from individual municipalities. This was also discussed with the municipal meetings conducted in 2007 and municipal field meetings conducted in 2008. The City will be requesting assistance from a consultant due to the large number of surveys and inspections required. The technical specifications for this RFP are under development.

36. Increased Monitoring for Violators – In progress. The City continues to increase City sampling and self-monitoring for frequent violators. In general, permits may be amended or re-issued requiring multiple resamples for parameters with prior compliance issues. Some permits require increased frequency of monitoring for multiple quarters of compliance prior to returning to a less frequent self-monitoring schedule. Additional monitoring by both the City and the industry is being tracked and reported to US EPA quarterly.

37. Pretreatment Computerized Management System - In progress and continuing. The City continues data entry into a commercial pretreatment database as well as an abbreviated spreadsheet upon receipt of analytical results from both City and industrial sampling.

38. Local Limits Re-Evaluation – Completed. Evaluation submitted to US DoJ and US EPA on May 5, 2006. Comments were received from US EPA and the City initially worked with B&V to address the comments and concerns. The City will be requesting assistance from a consultant to complete addressing the noted concerns due to timing. The technical specifications for this RFP are under development.

39. Quarterly SNC Reports to US EPA – In progress. The City continues to provide quarterly SNC reports to US EPA.

F. Funding

40. Funding – In progress. The 2009 budget was prepared and approved by City Council with the budgeted transfer amount remaining at \$3,000,000.

IX. CIVIL PENALTY

47. and 49. Penalty Amount and Payment Instructions – Completed.

X. SUPPLEMENTAL ENVIRONMENTAL PROJECTS: Angelica Stream Restoration

52. Details of SEPs listed below

- a) Background** - Not applicable.
- b) Goals of SEPs** - Not applicable.
- c) Removal of excess sediment and soil stabilization SEP** – Completed.
- d) Angelica Creek Restoration SEP** – Completed.
- e) Angelica Creek Riparian Buffer SEP** – Completed.
- f) Wetland Creation SEP** –Completed.
- g) Flood plain Meadow SEP** – Completed.
- h) Annual Maintenance and Access to SEPs** – Ongoing. Seasonal maintenance and mowing has begun.
- i) Design Costs and Final Plan** – Completed.
- j) Defendant Certification** – Not applicable.
- k) SEP Completion Report** – Completed. Report submitted to US DoJ, US EPA, and PA DEP on January 30, 2008 as part of the 4th calendar quarterly progress report.

The Angelica Environmental Park ribbon cutting ceremony was held on July 28, 2008.

Additional Items related to Consent Decree

Personnel

Operator Certification – In 2005, the City administration supported management in both water and wastewater during AFSCME contract negotiations. Personnel in certain rank and file positions are given 24 months in which to pass the appropriate certification exams. New hires or transfers into operations are advised of the certification need initially and given materials to read and review as part of their orientation and training. Based on the AFSCME contract language, July 15, 2007 was the initial date for employees who were in operational positions 24 months ago to be required to be certified. From there, new employees' certification requirements are being tracked based on their position start date. The positions requiring certification are Fritz Island Operator (Plant Operator), Pump Tender, and Belt Filter Press Operator (Solids Operator). The first two positions each have four people to provide continual coverage while the last position currently has two people providing two shifts weekdays and weekend coverage as needed. The current AFSCME contract allows some additional flexibility related to uncontrollable changes in certification requirements due to process changes or regulatory changes. During the first quarter, there were no personnel transfers in these positions. The following table shows the updated certification status of the rank and file employees in the positions requiring certification.

Position	PA DEP Certification
Plant Operator - Day	A,E - 2,3,4
Plant Operator - Evening	A,E - 2,3,4
Plant Operator - Night	E - 4 Passed exam A – 2
Plant Operator - Rotating	E - 4 Passed exam A – 2
Pump Tender – Day	A,E - 2,4
Pump Tender - Evening	A,E - 2,4
Pump Tender - Night	E - 4 Passed exam A – 2
Pump Tender – Rotating	E - 4 Passed exam A – 2
Solids Operator - Day	Due 06/16/2010
Solids Operator - Evening	E - 4 Passed exam A – 2

The City also has certified employees in positions not requiring certification. This is being reported as there is interest in obtaining certification by employees not in positions where it is a requirement.

Position	PA DEP Certification
WWTP Laboratory Technician	A,E – 2,3,4
WWTP Service Utility	A,E - 1,2,3,4
System Equipment Operator 2	E - 4
System Equipment Operator 2	E - 4

Additional WWTP Upgrades –

Although not specifically discussed in the Consent Decree, the following upgrades are being included in the WWTP upgrades for technical and operational necessity of the required improvements.

New WWTP Outfall – During the first quarter of 2009, the City realized the need for a new outfall as B&V had done additional investigation on the current outfall pipe compared to the design flows for the WWTP upgrades. B&V has contacted PA DEP regarding the design constraints for this to be included in the WWTP upgrades. This will require additional permitting and coordination as the outfall is currently submerged below the Schuylkill River and proposed to remain that way. The construction permitting needs to be coordinated between the PA DEP and the Army Corps of Engineers.

Operations and Maintenance

19th Ward PS Monitoring – The chart recorder is a daily chart per the recommendations of the hydraulic engineer so this enhances the ability to review pump operations during adverse conditions. Additionally, the secondary wet well level sensor that controls the pumps under high flow conditions has a separate chart recorder added for monitoring particularly the duration of any overflows from this station. The system showed no overflows occurred during this quarter which was verified by operations staff performing routine inspections. This monitoring evaluation will continue as field-verified levels for potential overflows are determined. This quarter, oil and grease problems recurred with ongoing coordinated investigation by plant, system, and pretreatment personnel as well as the contributory municipalities. A task force was formed to develop a response plan and related SOPs as well as a plan for connection point monitoring.

Computerized Maintenance Management System (CMMS) for Collection System– To adequately perform and document an ongoing infiltration and inflow program, catalog televisual inspection, and track service calls and repairs in the collection system, the City determined the need for a formal method to catalog the information. Geographical documentation of this information was the selected method for the database structure. The City has a static database of City information Woolpert has prepared for testing and training purposes. Woolpert made modifications to incorporate the existing work order format, priority, and assignment. Recurring safety and administrative functions are being incorporated into the existing CMMS and will be migrated into this software. Ultimately, this software is planned to be used in much of the Public Works Department.

A faster communication speed to City Hall servers is required to run the software efficiently as viewing the static database is rather challenging to our communication system. During the first quarter, a technology firm was contracted to evaluate the options, develop a technical RFP, and develop pricing, feasibility, and comparison of the proposed options for a selection and implementation.

42" Force Main and WWTP Influent Routing – Following the force main break discovered on January 10, 2008, a summary report in response to the PA DEP notice of violation for this January incident was sent to all parties identified in the Consent Decree. For this reason, this is not included in this quarterly report. During the second quarter, the City paid the \$5640 fine requested by PA DEP to reimburse their

expenditures as a result of the incident. The City paid a fine of \$5,000 to the PA Fish and Boat Commission in the first quarter of 2009.

A formal response plan has been developed to reduce the impact in the event of a similar recurrence despite all preventive efforts.

A meeting was conducted with a potential developer desiring to develop the riverfront area in Reading surrounding the Sixth and Canal pump station. B&V submitted a feasibility study to compare the options and their associated costs. This has been reviewed by the City and the PM/CM team. Due to the WWTP upgrades impact on hydraulics, this must be addressed shortly so as to not impact the design and construction schedule for the WWTP. This topic was discussed with City Council and updated in paragraph 19 above

Laboratory and Administration

Land and Building – The City purchased a parcel of land in 2005 adjacent to the wastewater treatment plant to be used for the construction of a new building for the administration, laboratory, and collection system. The City purchased a second adjacent parcel in March 2007. The City has contracted and completed a feasibility study and property survey for the proposed building needs, layout, and site work. The City intends to construct a LEED-certified, ‘green’ building and an access bridge across the Mifflin Arm of the Schuylkill River to the WWTP. On February 23, 2009 City Council awarded the civil engineering services contract to Herbert, Rowland & Grubic (HRG) and the architectural services contract to Seiler + Drury (S+D). Each firm has started work with an advanced notice to proceed while the contract documents area being finalized and executed. The firms’ summary of work to date on this project follows.

Administrative

Contributing Municipalities - The City and B&V met individually with the municipalities that contribute flows to the City’s wastewater system and plant to provide background information and the City’s current status including technical information related to the Consent Decree requirements. Also, the City wanted to obtain current status of flow projections and I&I reduction efforts. Some municipalities and authorities had their own staff or officials in addition to the appropriate engineers. In addition to the Consent Decree requirements for plant upgrades and system projects, the need for municipal adoption of the City’s sewer use ordinance was discussed as well as the need for ongoing communication regarding non-residential customers both being related to the industrial pretreatment program. Finally, the process to be followed when planning for new development and the use of PA DEP planning modules were discussed as well. Intermunicipal agreements are being reviewed briefly as they are a shorter duration than what is used for planning purposes for the capital improvements plan. Field meetings were conducted in the spring and summer of 2008 to inspect each connection point, metering location, and terminal pumping stations to the City system as well as available mapping for the system. This information is being used to develop more accurate service area mapping by connection point. Follow-up meetings have been conducted to view

interconnection points between contributing municipalities and additional information requests have been made based upon the findings of each meeting.

Funding - Some key aspects of funding clarification were added to the RFP for the WWTP PM team discussed above in paragraph 20. This forensic review is an initial task by the PM team with details listed in their report. Also, this quarter, a funding application was submitted and meetings were conducted regarding financing the capital improvements. These tasks were done by the PM team and are included in their report.

During this quarter, Charlie Jones was part of team on behalf of the City that went to Washington, D.C. to meet with federal legislators regarding the wastewater improvements and funding needs.

Response Times and Clarifications – The City continues to work in good faith on compliance issues outlined within the Consent Decree. There is concern regarding delays in regulatory responses for questions posed during meetings or within progress reports. As investigative field work in the collection system intensifies, previously identified concerns regarding timeline discrepancies within the Consent Decree become more evident. Clarification is critical to allow the City to balance the allocation of resources in efforts to maintain compliance.

PA DEP Meetings – B&V has been in telephone contact with PA DEP on several permitting issues.

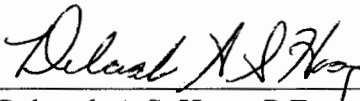
NPDES Permits and Limits – The NPDES permit renewal has not been received despite the permit expiration on May 1, 2006. Draft limits by one MGD increments have been provided for design purposes but a draft permit has not been received to date. During the discussion following the application, the reduction of permit limits by PA DEP seemed to be a forgone conclusion despite having a Consent Decree report stating the existing plant is unable to meet the limits consistently. The City would propose the concept of an extension of existing permit limits or interim limits during the construction phase until the new facilities are on-line. During a meeting in May 2008, the permit writer explained PA DEP's policy to not renew an operating permit for a facility known to be undergoing an expansion or upgrade.

VI. REPORTING REQUIREMENTS

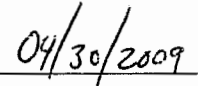
41. Report Contents and Certification

- (a) **Remedial Measures Paragraphs 7 through 40** – See above numbered sections.
- (b) **Anticipated Problems** – See italics in above numbered sections.
- (c) **Additional Matters** – See italics in above unnumbered sections.
- (d) **Certification Statement** –

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted, is to the best of my knowledge and belief, true, accurate, and complete.



Deborah A.S. Hoag, P.E.
Utilities Division Manager



Date

Black & Veatch
WWTP Design Engineering Progress Report
First Quarter 2009 Summary

Project Management

- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Submitted VE Support status and budget impacts in letter to City on January 6, 2009.
- Coordinated efforts in the preparation of responses to the list of Potential Cost Savings from the VE Study.
- Received and reviewed Peer Review Comments from City and PM/CM.
- Developed list of critical decisions for meeting on January 26.
- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Submitted a letter to City on February 25, 2009 that provided update on that status and steps to completing the VE Study and PER phase of the project.
- Coordinated efforts in the preparation of responses to the list of Potential Cost Savings from the VE Study.
- Coordinated efforts in the preparation of responses to the Peer Review Comments.
- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Prepared and submitted letter to City on March 9, 2009 documenting the status of the preliminary engineering phase.
- Met with City staff and PM/CM on March 5, 2009 in preparation for meeting with City Council on March 7, 2009.
- Met with City and PM/CM on March 10, 2009 to discuss coordination issues.
- Participated in weekly coordination calls with the City and PM/CM.
- Coordinated efforts in the preparation of responses to the list of Potential Cost Savings from the VE Study.
- Coordinated efforts in the preparation of responses to the Peer Review Comments.
- Prepared and proposed alternate design delivery approaches in an effort to reduce the design schedule.

Project Controls

- Met with City and PM/CM to review and discuss baseline design schedule on February 10, 2009.
- Updated baseline schedule with revised City review durations per comments from City in meeting on February 10, 2009.
- Prepared and submitted alternate design approach and schedule in an effort to reduce the project schedule.

Presentations to City Council

- Prepared slides for presentation to the City Council on Solids Processing Options.
- Presented updated Solids Processing Options to City Council on February 9, 2009.
- Met with City staff, City Council and PM/CM to discuss project budget and schedule.

Permitting

- Contacted PADEP and USACE to discuss permitting of a new outfall and a bridge across Angelica Creek.

- Continued discussions with regulators regarding flood plain issues and overall general permitting requirements.
- Prepared and submitted PNDI and PHMC applications.
- Worked on defining tasks and overall approach to permitting.

Treatment Compatibility Testing

- Provided support to City related to potential new industry.

Site Investigations

- Continued working with new surveying subconsultant to review existing survey data to determine what is reusable.
- Continued to coordinate scope of services for new surveying subconsultant at the request of the City.
- Attended meeting with City and designers for the firing range on south side of island
- Continued working with new surveying subconsultant to review existing survey data to determine what is reusable.
- Continued to coordinate scope of services for new surveying subconsultant at the request of the City.
- Continued working with new surveying subconsultant to review existing survey data to determine what is reusable.
- Continued to coordinate scope of services for new surveying subconsultant at the request of the City.
- Upon request, worked with City and PM CM to coordinate firing range planning.
- Coordinated surveying activities currently being conducted.

Geotechnical Services

- Began review of the geotechnical subconsultant's responses to our review comments regarding their Draft Phase 1 Report.
- Reviewed geotechnical subconsultant's responses to our draft geotechnical report review comments.
- Worked on scope of work for geotechnical services for the new Post Aeration Basin, Effluent Pumping Station and Outfall. Submitted scope to geotechnical subconsultant and requested fee proposal.
- Reviewed geotechnical subconsultant's responses to our draft geotechnical report review comments.
- Worked on scope of work for geotechnical services for the new Post Aeration Basin, Effluent Pumping Station and Outfall. Submitted scope to geotechnical subconsultant and requested fee proposal.
- Began review of implications of the City's request to shift the solids handling and digester facilities at the north end of the island as related to the initial boring program and foundation recommendations.

Oil and Grease Evaluation

- Revised/updated Technical Memorandum No. 3.

Digester Gas/Cogen Evaluation

- Revised/updated Technical Memorandum No. 4.

Preliminary Engineering Report

- Conducted meetings with City staff and UV vendors
- Prepared responses to the Peer Review Comments.
- Revised PER with VE changes for submittal to PADEP.
- Completed responses to the Peer Review Comments.
- Revised and submitted Technical Memorandum No. 6.

Value Engineering Support

- Prepared updated solids evaluation.
- Prepared updated disinfection evaluation.
- Prepared updated 6th & Canal evaluation.
- Performed further evaluations of VE items identified in the VE Implementation Meeting #1 including:
 - Additional 18th Ward influent piping options
 - Combining the Headworks and the Influent Pumping Station at the site location of the Influent Pumping Station
 - Primary clarifier type, size, and site layout options
 - Aeration blower size and voltage
 - Generator size, voltage and location
 - Final Clarifier/Distribution Box/RAS/WAS Pumping Station site layout options
 - Feasibility of providing post aeration in the existing tertiary aeration tanks
 - Feasibility of converting the proposed BNR basin anaerobic zone into an anoxic zone and install both mixing and aeration equipment in the anoxic zone to allow seasonal use as an AX/OX switch zone
 - Final clarifier process sizing
 - Chemical type for wet weather flow disinfection
- Performed hydraulic profile analysis with the addition of a new outfall, new post aeration basin, and VE recommended pipe size modifications.
- Revised primary clarifier size and layout.
- Contacted PADEP to discuss new bridge crossing of Angelica Creek to allow 18th Ward sewer to hang from new bridge.
- Reviewed and prepared responses to Hazen & Sawyer memo regarding the Biowin model of the treatment process.
- Met with the City and PM/CM on January 26 for VE Implementation #2 meeting to review responses to VE Study Potential Cost Savings.
- Reviewed Peer Review comments received from PM/CM group.
- Worked on updates to the hydraulic profile to incorporate VE Study recommendations.
- Worked on evaluation of standby power alternatives.
- Participated in conference call to discuss standby power alternatives.
- Worked on responses to VE Study comments related to the process design model.
- Participated in conference call to discuss process design model.
- Worked on preliminary engineering of new Post Aeration Basin, Effluent Pumping Station and Outfall.
- Prepared layouts for three primary clarifier configurations and submitted to City for review.
- Prepared revised site layout of Final Clarifier Flow Distribution Box, Final Clarifiers, and RAS/WAS Pumping Station.
- Worked on VE Changes Memoranda to describe the changes to the PER design moving forward into detailed design.

- Worked on updates to the hydraulic profile to incorporate VE Study recommendations.
- Worked on evaluation of standby power alternatives.
- Participated in conference call to discuss standby power alternatives.
- Prepared and submitted VE change memoranda on March 13, 2009 documenting the changes to the PER that will be incorporated into the detailed design.

Level 1 Detailed Design

- Began detailed design of the new Solids Handling Building.
- Continued working on detailed Level 1 design as defined in the March 13, 2009 letter.
- Scheduled and attended a presentation by Trojan on their UV equipment.
- Prepared and submitted memorandum recommending UV equipment to be incorporated into detailed design.

Hill/Weston Solutions/Hazen & Sawyer
WWTP Upgrades PM/CM
First Quarter 2009 Progress Report

Project Management (Hill):

- Attended several update meetings with the client. Topics included Value Engineering (Implementation Meeting #2), a Project Update and a Financial Analysis update to the City Manager, and a Financial Update to City Council's attorney.
- Prepared for and briefed City Council on WWTP status.
- Drafted and sent several documents to the City: PM/CM Assessment, Critical Items Flowchart, Design Baseline Schedule and a Draft VE Cost Savings Report.
- Held discussions with the designer reference the Design Baseline Schedule.
- Attended a Funding meeting with Stevens & Lee in Harrisburg.
- Held several discussions with subcontractors reference Peer Review Comments.
- Held several discussions with the Financial Grant consultant concerning program funding, particularly PA H2O Act funding.
- Held several discussions and meetings with the Financial Analysis consultant reference the Historical and Pro Forma Models.
- Conducted Project Administration functions: reviewed invoices, explored filing options, worked subcontractor contracts.
- Continued reviewing project documentation.
- Coordinated and attended several update meetings with the client and/or designer. Topics included Grant Funding (H2O Application), Briefings to City Council (Solids and 6th & Canal), VE (electrical issues), Design Baseline Schedule meeting, BioWin teleconference, project and financial analysis updates to City Manager, and several meetings with City Council's attorney.
- Submitted the VE Implementation Letter and Spreadsheet.
- Held separate discussions with Owner Controlled Insurance Program (OCIP) broker and Ms. Hoag.
- Prepared for and briefed City Council on WWTP status (Feb 17).
- Held several discussions with subcontractors reference VE Workshop, Peer Review Comments, and Strategy to Complete Level 1 Design.
- Held several discussions with the Financial Grant consultant concerning program funding and timing, particularly PA H2O Act funding.
- Held several pre-briefs with the Financial Analysis consultant reference the Historical and Pro Forma Models.
- Conducted Project Administration functions: reviewed invoices, held internal meetings, drafted a Project Management Plan, worked subcontractor invoices and contracts.
- Continued reviewing project documentation.
- Prepared for and attended a pre-brief and participated in a briefing to the mayor and City Council.
- Participated in several internal scheduling and financial coordination meetings; conducted an initial bid package charette.
- Participated in a Financial Analysis Conference call with the City (March 2); participated in a client meeting in Reading with the designer and City (March 10); participated in several Design Update meetings.

- Prepared and sent responses concerning Level 1 Design/Design Elements and Design Baseline Schedule, BioWin; prepared a response to B&V's Alternate Schedule proposal.
- Continued coordination on open electrical VE issues.
- Continued work on a Project Management Plan.
- Began coordination on an Owner Controlled Insurance Program (OCIP).
- Updated an Open Issues Matrix.
- Reviewed an updated site plan provided by B&V as well as a Firing Range site plan; participated in an on site meeting concerning the Firing Range.

Project Controls (Hill):

- Continued work on the Project Management Information System (PMIS)
- Develop a Critical Project Items Flow Chart.
- Issued PMIS software logins.
- Continued work on the designer's Baseline Schedule.
- Distributed various documents including VE reports and summaries.
- Reviewed and consolidated sub consultant invoices.
- Refined the Project Controls System, primarily scheduling.
- Continued work on the Project Management Information System (PMIS).
- Assisted with the VE Spreadsheet.
- Continued work on the designer's Baseline Schedule; prepared and attended scheduling meeting with the client and designer.
- Reviewed and consolidated sub consultant invoices.
- Started development of alternate construction bid packages.
- Refined the Project Controls System, primarily scheduling.
- Continued work on the Project Management Information System (PMIS).
- Assisted with the VE and Design Issue Spreadsheets.
- Continued work on the designer's Baseline Schedule; prepared for a scheduling meeting to be held with the owner and designer.
- Reviewed B&V's Alternate Design Schedule and drafted a response letter.
- Participated in phone conferences concerning the Firing Range and design schedules.

Cost Estimating (Weston):

- Prepared cost estimates for VE item E-4.

Value Engineering (Lewis and Zimmerman; also see PM, CM bullets):

- Continued to respond to and answer various questions in reference to the VE workshop.
- Charges associated with VE report reproduction costs.

Design Review/Technical Support (Hazen-Sawyers and Weston):

- Made on-site visits to the City of Reading to obtain Owner's Peer Review comments (January 6th and 8th).
- Compiled Peer Review comments for the Design Review documents including PER, Drawings, and Technical Memoranda.
- Participated in Second Post-VE Implementation Meeting on January 26, 2009.
- Attended UV Manufacturer Presentations on January 29, 2009.
- Compiled comments for Second Disposition Table for the VE Process.
- Continued work on the BioWin model.
- Assisted in the preparation of VE Second Disposition Table and Implementation Letter based on the January 26th meeting.

- Attended City Council Briefings and Working Sessions for the Solids Handling and 6th & Canal Pumping Station (February, 9th, 10th, 17th and 23rd).
- Participated in Pre-Meetings for the Council Briefings (February 4th and 5th).
- Provided technical evaluation of Technical Memorandum No. 1 and participated in a conference call with the City, B&V and PM/CM Team regarding Technical Memorandum No. 1 (February 27th).
- Attended project principals meeting with Hill and Weston on February 11, 2009.
- Prepared cost estimate for VE Item E-4 to evaluate the use of emergency generators at each substation (Kochubka, Moretz, Booz, Briele – February 2-10)
- Participated in a conference call on February 19, 2009 to discuss electrical VE Items (AB-4 and E-4); preparation of action items resulting from call (Kochubka, Briele)
- Reviewed B&V alternatives for VE item E-4 (Briele – February 24)
- Developed an Open Items Action Log.
- Participated in several Design Update meetings (March 18th, 20th and 25th).
- Attended a City Council Briefing on March 7th.
- Participated in Pre-Meetings for the Council Briefings (March 4th and 5th).
- Reviewed B&V February 25th letter regarding Completion of Level 1.
- Reviewed B&V March 9th letter regarding the project schedule.
- Reviewed of B&V March 13th letter regarding Design Elements.
- Provided additional technical evaluation of Technical Memorandum No. 1, reference letter dated March 6, 2009.
- Provided a review of TM 3 (FOG) and TM 6 (Digesters).
- Reviewed B&V's Alternate Schedule.
- Provided a review of Peer Review responses. This task is on-going.
- Attended a UV demonstration by Trojan Technologies on March 11th.

Regulatory Compliance): N/A

Grant Funding (Duane Morris):

- Worked on a Financial Analysis memo.
- Started the PennVEST application, registered the City into the PennVEST system.
- Attended a meeting in Harrisburg with Stevens and Lee (consultants).
- Participated in various calls and meetings in support of the project including status updates, H2O PA Act funding, PennVEST and others.
- Participated in several calls w/ the PM concerning project status and impacts on Grant Funding.
- Completed Program Matrix and sent to PM.
- Drafted an initial H2O Funding Application and a draft resolution.
- Attended a Financial meeting w/ Council's attorney, PM and financial analysis consultant (in Reading).
- Contacted Vickie Johnson of PennVEST reference timing of the application.
- Participated in several calls with City officials reference Grant Funding.
- Conducted Stimulus Package Research.
- Conducted necessary Administration functions; invoicing, reporting.
- Conducted research, met with Ms. Hoag, prepared and submitted PA H2O Act application.
- Participated in several calls and meetings with the City about grant funding.
- Conducted Stimulus package research.
- Conducted necessary Administration functions such as invoicing and reporting.

- Prepared a letter to Deborah Hoag transmitting copies of H2O PA Exhibits 9, 12 and 13.
- Prepared a transmittal letter and forwarded Berks Co Planning Agency letter to DCED for H2O Application.
- Worked on a PennVEST Application.
- Participated in a Conference call to discuss project design and grant funding synchronization.
- Worked on a funding status memo.
- Set up a meeting with Vickie Johnson, PennVEST for March 30, 2009.
- Coordinated with Brian Eckert, DCED, re H2O PA Application.
- Worked on a funding status memo.
- Met with Vickie Johnson reference PennVEST funding .
- Completed a funding status report and e-mailed to PM.
- Conducted necessary Administration functions such as invoicing and reporting.

Financial Analysis (Public Financial Management):

- Continued Financial Analysis research and preparation—Historical, Rate Analysis and Capital Cost Modeling.
- Continued analyzing City Financial Statements.
- Presented preliminary Financial Analysis updates to PM and City Council’s attorney; presented an update briefing to City Manager.
- Held several discussions with the PM concerning financial deliverables.
- Continued to coordinate with City representatives to obtain needed historical financial data including audited financial statements and participant-specific usage, rate and capital reserve contribution figures.
- Worked on the Pro Forma Model.
- Set up a Budget Template.
- Prepared for and attended a financial update meeting with the City Auditor.
- Prepared for updates to the City Manager and City Council.
- Worked on the Pro Forma Model; prepared for and briefed the City Manager.
- Coordinated with the City’s Working Group for model input.
- Participated in several meetings: meeting with the PM prior to the brief to the City Manager, a briefing to the Mayor and City Council as well as several budget modeling meetings.
- Participated in several budget meetings.
- Participated in a meeting with the mayor and City Council.

Public Relations: N/A

Surveying: N/A

Construction Management (primarily Weston):

- Reviewed VE report to verify all electrical issues were covered
- Attended 2nd VE post workshop meeting.
- Reviewed B&V response to electrical VE items and conducted a conference call with City of Reading, B&V, and Weston.
- Participated in a conference call to discuss/review Sixth and Canal Conveyance Options presentation to City Council (Kochubka - February 4).

- Reviewed B&V's cost estimate for VE Item AB-4 alternative; submitted follow up questions regarding electrical alternative evaluation; reviewed B&V responses and final evaluation.
- Reviewed the proposed Firing Range layout and developed a preliminary layout for a construction trailer area.
- Developed an initial work breakdown structure (WBS) for the construction schedule.

Resident Engineer: N/A

Inspection: N/A

Health and Safety: N/A

Start-up: N/A

Herbert, Rowland & Grubic
Utilities Building Civil Engineering Services
First Quarter 2009 Summary

Preliminary Sketch/LEED services included coordination with client and Cumru Township to arrange and attend initial Township meeting; initial discussion of zoning and land development issues and review process. Conduct initial review of Township ordinances. Update project schedules and prepare alternate concept sketches for review; attend project kickoff meeting with client and team.

Wetlands Delineation services included initial coordination, research, PNDI check, and field work to identify and delineate onsite wetlands; progress on wetlands report. Coordinate to arrange work of Bog Turtle Habitat consultant; review draft report.

Carbonate Geology Report services included review of geological maps, aerial photos, and other published information; site visit to observe field conditions. Prepare draft report for internal review.

Stormwater Management services included research into Act 167 requirements and draft Township stormwater ordinance. Prepare list of questions and coordinate with Township Engineer for responses.

Traffic Impact Study services included review of newly adopted (Jan 2009) PennDOT Traffic Impact Study requirements. Coordinate with client and Township regarding TIS scoping process; request employee, parking, and trip data from client, prepare initial draft of trip generation calculations.

Driveway HOP services included request for Route 10 right-of-way plans from PennDOT.

Survey services included review of existing ALTA survey, FEMA information, deeds, and right-of-way information. Obtain PA-1 Call data. Conduct field survey of a portion of the island, check and tie into main property. Begin conversion of field data to base map.

Coordination with WWTP Team services included initial introduction and scheduling emails with client and WWTP project manager.

Bridge Design services included initial work on alternative crossing alignments.

Bridge Additional Survey services included field work to obtain stream cross sections of Mifflin Arm as base information for future hydraulic analysis and design.

Permitting services included work to locate optimal cross sections.

Seiler + Drury
Utilities Building Architectural Services
First Quarter 2009 Summary

On February 27th of 2009, our office received the Notice to Proceed from the Department of Public Works authorizing our project team to begin Architectural Services towards the development of the new Public Works Utilities Building at the City of Reading's Wastewater Treatment Complex.

Architectural services began during the month of March and included the following general project on-site meetings.

Pre Kick-off Meeting with Director of March 9th

Kick-off Meeting with full Project Team (Civil Engr., Construction Manager, Owner's Representatives) of March 12th.

Preliminary Meeting with Cumru Township of March 26th

Extent of services during this time period focused on development of the project's Schematic Design including review of previous program and conceptual design and subsequent revisions as necessitated by User revisions and existing site parameters.

Project Progress includes development of the following items:

- 1) Preliminary Floor Plans
- 2) Preliminary Site Sketch
- 3) Development of Preliminary LEED Checklist
- 4) Revisions to Floor Plans and Site Sketch per meetings and phone conferences
- 5) Preparation of Meeting Minutes per individual meetings and phone conferences itemized above.



CITY OF READING, PENNSYLVANIA

UTILITIES DIVISION
WASTE WATER TREATMENT PLANT
815 WASHINGTON STREET
READING, PA 19601-3690
(610) 655-6258

PUBLIC WORKS
DEPARTMENT

July 30, 2009

Ms. Margaret L. Hutchinson, Esq.
Assistant United States Attorney
Civil Division Eastern District of Pennsylvania
615 Chestnut Street
Suite 1250
Philadelphia, PA 19106-4476



Re: City of Reading Consent Decree
Calendar Quarterly Progress Report
2nd Quarter 2009

Dear Ms. Hutchinson:

In accordance with Section VI Reporting Requirements, Paragraph 41, you will find enclosed the City of Reading's Calendar Quarterly Report. This documents progress and status on the implementation of Section V Remedial Measures described in Paragraphs 7 through 40. Please feel free to contact me at 610-655-6258 should you have any comments or questions.

Sincerely,

Deborah A.S. Hoag, P.E.
Utilities Division Manager

DH/eh

Cc: Christopher A. Day, Esq., US EPA
✓ Lisa Trakis, US EPA
Lee McDonnell, PA DEP
Shawn Arbaugh, PA DEP
Charles M. Jones, P.E., Director of Public Works
Ralph E. Johnson, Superintendent
Stephen K. Hydro, P.E., Black & Veatch
Anthony C. Vesay, P.E., Hill International
Keith Mooney, Esq., Legal Counsel
file



**City of Reading Consent Decree
Calendar Quarterly Progress Report
Period Ending June 30, 2009**

V. REMEDIAL MEASURES

A. General Duties

7. Duty to Comply with Permit – In progress. The City's wastewater treatment plant had two (2) NPDES permit violations during this quarter. Both violations were ammonia occurring in May when the reduced summer limits become effective with one for the monthly concentration and the other for the monthly loading. An excerpt of the letter detailing the City's actions to prevent and minimize the extent of violation follows:

The City had implemented planned, proactive, preemptive measures prior to May to ensure ammonia treatment compliance. Measures taken included the use of an extensive computerized preventive maintenance management program, process tracking using graphs and historical comparisons, secondary trickling filter's recirculation improvement to maximize performance, and tertiary aeration process snail treatment to maximize ammonia removal. Evidence of the impacts of these continually improving measures were seen with the addition of the snail treatment in 2009 and the positive effect on ammonia removal in April. The April 2009 monthly average ammonia concentration was 7.3 mg/L versus the monthly average concentration of 13.7 mg/L the previous April. Given the WWTP compliance for ammonia in May 2008, this year was anticipated to be in compliance as well.

In addition to the planned, proactive, preemptive efforts listed above we initiated the following steps throughout May upon data analysis showing lower than desired ammonia removal. The City's goal was to maximize ammonia removal and treatment performance by the WWTP.

This was followed by the 29 actions undertaken by the City during May in an attempt to achieve NPDES permit compliance. This letter in its entirety can be provided if desired.

For the month of June, the effluent ammonia was less than half of both the permitted monthly average concentration and loading.

The City also received a June 19, 2009 Notice of Violation from PA DEP for exceeding the instantaneous maximum concentration limit for an ammonia grab sample during the May 13th facility inspection and sampling event. An internal investigation was conducted due to the disparate analytical results on a sample split with PA DEP analyzed by the City's PA DEP accredited laboratory. Additional information has been requested by the PA DEP Bureau of Laboratories in order to investigate the situation and prepare a response letter. PA DEP granted an extension of time to respond while the City awaits the additional information from the PA DEP Lab.

8. Operation and Maintenance of the Facility – In progress. The City continues formalizing and documenting the operational and maintenance

procedures related to the treatment plant, pump stations, collection system, and laboratory.

B. Interim Measures

9. Interim Compliance – Environmental Management System

(a) **Submission** – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. *The City awaits a response for the approval of the system and its components listed below as proposed.*

(b) **Maintenance Management System** - Continuing progress. The City continues the planned implementation of improved and expanded use of the Antero computerized maintenance management system. This ongoing increased use of the maintenance management system includes recurring work orders for maintenance upon discovery of the unaddressed cause of any problem. The use of this system is treated as an ongoing tool for the facilities' operations and maintenance. The wastewater treatment plant will migrate to the new CMMS being developed for the collection system due to the interrelated operations and maintenance activities.

(c) Supervisory Control and Data Acquisition (SCADA) system

1. Interim SCADA System – Completed and certified.

2. Upgrades to SCADA System – Not applicable. Upgrades not required based upon the submission and approval of paragraph 18. While not required by the Decree, the City continues progress with this operational tool in planning for the future plant improvements and ensuring operational consistency. Black & Veatch (B&V) has been retained to oversee the SCADA development for consistency and the development of standards and conventions for future use in the plant upgrades. Additional operational parameters continue to be added to the SCADA system. Select existing screens have been modified for operational and visual consistency and modifications to additional screens are planned. Troubleshooting is on-going regarding infrequent automated control program glitches, report generation, and historical trending. The City has worked with B&V to develop the target enhancements to address this year with the existing SCADA system alarm annunciation and history, security, program documentation, and hardware and software upgrades. B&V is making improvements in these areas and will be scheduling a field visit for the installation during the third quarter. Finally, options to utilize the SCADA system as a reference tool have continue to be explored and enhanced for improvements to facility operations and maintenance.

(d) **Pretreatment Data Management System** – Continuing progress. The City continues the ongoing data entry into a commercial pretreatment database as well as an abbreviated spreadsheet as analytical results are received from both City sampling and industry self-monitoring.

10. Interim Plant Influent Monitoring – Completed and continuing as required.

The City had compared two meters on the force main from the Sixth and Canal pump station (6&C PS) to the WWTP. One is close to the 6&C PS while the other is at the WWTP. Previously, the City had used the meter at the WWTP for

the influent loading calculation. The City investigated the 42" force main routing for any causes of disparity in metering. Due to the age (1959) and condition of the primary device associated with the WWTP meter, the newer, non-invasive 6&C PS flow meter has been used from this point and investigations on flowmeter accuracy will be done retrospectively. Beginning with the 2009 annual report to PA DEP, this calculated data absent recycle loads will be used for influent load comparisons for annual reporting. This will continue until this is no longer required due to physical changes to the influent lines for both sampling and metering flow..

As part of the influent monitoring, the City monitors the recycle flows as calculated from this influent load and the WWTP influent with recycles. A team has been created to evaluate and resolve questionable WWTP recycle loading data. This team has been assessing sample and flow data to determine the cause for what appears to be erroneous WWTP recycle data. A flow meter was added and sampling locations and techniques are being compared to assure representative samples are collected. Trending and comparisons to plant maintenance schedules have been determined to be part of the disparity and the team is continuing to investigate other influences. In the second quarter, a pump was added for mixing to ensure the sample obtained for comparative purposes is representative of the influent with recycles and not subject to influences based upon location. Results of this ongoing assessment will continue to be provided.

11. Interim Trickling Filter Performance Measures – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for trickling filter continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

(a) **Performance Improvements** – Completed and ongoing as part of the Operations and Maintenance plan using the Computerized Maintenance Management System.

(b) **Unit Efficiency Monitoring Recirculation Rate** – Completed.

(c) **Recirculation Rate** - Completed with flow monitoring continuing for the primary recirculation. Since the identification of available piping, secondary trickling filter recirculation has been in continual use. The combined recirculation was increased to 75% with marked improvements in the biological growth noted on the secondary trickling filters. City staff has made physical modifications to improve the flow metering for the secondary recirculation rate.

(d) **Longer Term Monitoring and Reporting** – Completed and continuing with modified locations as approved.

12. Process Control Testing – Completed and continuing as required. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for treatment units' continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

13. Dangerous Gas Detection – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Inspection and calibration are being done routinely and repairs are made when noted upon inspection.

14. Certified Plant Operators – The City currently has six shift supervisors who are assigned in categories as follows: day, evening, night, and rotating shifts, operational maintenance, and administrative. The supervisors began continuous coverage on November 1, 2006 as scheduled. To ease the tracking of licensed employees for the facility, a table has been developed for the facility's shift supervisors, and related City management staff. The facility currently requires a PA DEP Class A-2 for the plant and an E-4 for the collection system. These dual certification requirements have been extended to appropriate plant staff as they are also responsible for the pump station in the collection system. Shift supervisors, by virtue of their written job description, are required to pass the appropriate certification examination within twelve (12) months of hire or promotion into the position and all have done so. Most of the shift supervisors are new to the wastewater field. As a result, they are required to obtain the requisite operating experience prior to being issued their certification. During the second quarter of 2009, there were no changes with shift supervisors. All shift supervisors have received the appropriate PA DEP operator certification as detailed in the table below.

Employee	Title	PA DEP Certification
Charles M. Jones, P. E.	Director of Public Works	A,E – 1,2,3,4
Deborah A. S. Hoag, P. E.	Utilities Division Manager	A,E – 1,2,3,4
Ralph E. Johnson	Wastewater Superintendent	A,E – 1,2,3,4
Roger D. Hillibush	Operations Supervisor	A,E – 1,2,3,4
Russell L. Stoudt	Maintenance Supervisor	A,E – 1,2,3,4
Jackie C. Hendricks	Environmental Program Coordinator	A,E – 2,3,4
Amy L. Morriss	Laboratory Supervisor	A,E – 1,2,3,4
John P. Farrier	Systems Superintendent	E - 4
Gregory R. Fetter	Shift Supervisor – Operational Maintenance	A,E – 1,2,3,4
Robert E. Gensemer	Shift Supervisor - Administrative	A,E – 2,4
George E. Fultz, II	Shift Supervisor – Day	A,E – 2,4
Felix V. Stacherski	Shift Supervisor – Evening	A,E – 2,4
Daniel J. Dixon	Shift Supervisor – Night	A,E – 2,4
Roger R. Spitler	Shift Supervisor – Rotating	A,E – 1,2,3,4

The selected treatment alternative, as approved under Paragraph 18, requires an A-1 certification which is not currently required for the existing treatment plant. Most managers already possess this certification and some of the shift supervisors have studied and taken the activated sludge module in advance of the construction to be prepared for the plant's transition from trickling filters to activated sludge. Additionally, the City has been discussing flexibility with the certification wording with the AFSCME local representing first level supervisors so that changes in technology or certification requirements do not require additional contract negotiations. As discussed in the March 21, 2006 meeting (and the July

10th telephone conference), the new supervisory employees do not have specific wastewater experience prior to their hire but are required to pass the certification exam within twelve months of hire. PA DEP certification experience and training requirements do not allow the issuance of the operator certification based solely on the passing of the examination. Alternate language was proposed due to the difficulty recruiting already certified personnel to fill these positions and the timing required to obtain certification to provide the level of staffing required. The City suggested changing from "individual shall be required to *obtain certification* within 12 months of the date of hire" to "individual shall be required to *pass the certification examination* within 12 months of the date of hire." The City received a letter dated June 16, 2009 from PA DEP concurring with the language amendment. The concern expressed about the follow-through to obtaining certification should not be an issue as there is a monetary incentive for the employees.

15. Operations and Maintenance Plan - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. Progress continues with future planned activities as discussed in the submitted plan. In the assessment of key processes, the City took action to eliminate bottlenecks and vulnerabilities to improve the performance of the existing plant. This was done as a necessary step to ensure regulatory permit compliance until the construction and start-up of the new facilities. These are the interim improvements required in the Capital Improvements Plan. The City continues to make additional improvements beyond the initial assessments as part of the continual reevaluation and optimization of plant operations. In the second quarter, operational focus continued with preparations for the reduced summer permit limits that are effective in May. The chemical treatment for unwanted biological growth was completed so that the desired physical tank cleaning and inspections could also occur prior to the permit limits changing. The WWTP experienced an unexpected failure of a trickling filter arm that warranted emergency repairs and had the staff continuing the focus on permit compliance.

16. Staffing Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 30, 2005.

17. Interim Wet Weather Operational Strategy - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 7, 2006. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

C. Long Term Evaluation and Construction Schedule

18. Treatment Plant Alternatives Submission – Completed. See below.

(a) **Existing Plant Process Evaluation Report – Completed.** Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the validity of the evaluation presented. Response received from PA DEP on May 23, 2006 acknowledging compliance.

(b) Evaluation of Treatment Alternatives Report – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006 and formal presentation of the report and findings conducted at March 21st meeting. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the selected liquid and solids treatment technologies. Response received from PA DEP on May 23, 2006 acknowledging compliance. At the May 26, 2009 meeting, the City requested the ability to have the regulators re-consider the biosolids handling alternatives and selection based upon changes in the regulatory, environmental, and economic climate in the past few years. The revised information B&V originally prepared for the City's review and consideration was submitted to US DoJ, US EPA, and PA DEP on June 30, 2009 for review and consideration.

19. Capital Improvements Plan – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 16, 2007. Preliminary costs for biological treatment and solids handling facilities were developed as part of the plant and treatment alternatives report. Common facilities including headworks facilities, clarification, and disinfection are being included that were not required for the treatment alternative report. B&V prepared alternatives and cost estimates for wastewater routing between the 6th and Canal area and the WWTP as well as plant and pump station improvements required as a result. This was presented to City Council for their consideration and decision. During the second quarter, additional investigative work was done in preparation for updating the estimates and a May 27, 2009 public meeting prior to a June 8, 2009 Council decision. The design efforts for the headworks of the WWTP were briefly on hold until Council decided to pursue the deep gravity sewer, or tunnel, option. Since that decision, B&V has resumed the design of the WWTP headworks and influent pumping station as well as beginning the tunnel design.

In the assessment of key processes for the Operations and Maintenance Plan, the City took action to eliminate bottlenecks and vulnerabilities as well as to evaluate and make cost-effective interim upgrades for performance improvements to the existing plant. This was previously submitted as part of the Operations and Maintenance Plan required by Paragraph 15. Additionally, the City continues to make improvements beyond the initial assessments as part of the continual reevaluation and optimization of the existing plant operations. This is ongoing with current update information noted above in Paragraph 15.

20. Request for Proposals – Completed. The City issued a request for qualifications (RFQ) for the implementation of the selected treatment alternative to identify design firms to be invited to submit a proposal in response to the City's request for proposals (RFP). City Council awarded the \$12,954,355 contract to Black & Veatch on March 24, 2008. The final contract was executed on June 23, 2008 with a retroactive effective date of March 25, 2008.

The City requested proposals for WWTP upgrades project management (PM) and construction management (CM). City Council awarded the \$7,825,075 contract for both PM and CM to the team of Hill International/Weston Solutions/Hazen

and Sawyer (HWH&S) on September 8, 2008. The final contract was executed on November 11, 2008 with a retroactive effective date of September 9, 2008..

21. Permit Applications and Design –Ongoing. A permitting coordination meeting was conducted on June 30th with the following regulatory agencies represented: PA DEP, US Army Corps of Engineers, Delaware River Basin Commission, and Berks County Conservation District. An internal City permitting coordination meeting to introduce details of the project is scheduled for July 7th in an attempt to expedite the internal approvals process.

A summary of the progress reports received from B&V for the WWTP design performed this quarter is attached.

A summary of the progress reports received from HWH&S for the WWTP PM/CM tasks performed this quarter is attached. Additionally, they are leading the financial and funding efforts for the WWTP project.

A separate contract for the WWTP survey was awarded to Bursich Associates with the work commencing during the first quarter of 2008 in advance of the design contract award. This work was initially included in the WWTP design team's scope of work and has been problematic as a separate City contract with the work product used directly by the design team. One of the first tasks assigned to HWH&S as the PM was to evaluate and make a recommendation for action regarding this separate contract. The City has requested B&V to proceed with this added to their scope while the City proceeds with guidance from the PM/CM to resolve any outstanding financial and legal issues with the initial separate survey contract.

As discussed and requested at the May 26, 2009 meeting, the June 30, 2009 submittal included an updated design and construction schedule for review and consideration. A later submittal will provide the requested additional information regarding the construction management aspect of the project.

22. Permitting – Not applicable.

23. Construction Completion – No progress.

24. Start-Up and Operation – No progress.

D. Collection System

25. GIS Mapping System - In progress. See below.

(a) **Purpose of GIS System** - Not applicable.

(b) **GIS Mapping of the Sanitary Sewer Collection System** – In progress. The 2005 aerial photography of the collection system has been accepted following quality control checks by the City GIS Coordinator. With the assistance of City sewer team personnel, ATS Chester began field data collection in July, 2006. The initial phase for field data collection is the sanitary interceptors and force mains with phase two being the remaining sanitary structures. The GIS mapping follows each phase's data collection with submission to the City for review and approval. The City's legal counsel was able to reach an amenable agreement with ATS Chester which has now been executed and requires the City to begin fresh and not reuse any ATS Chester data in our possession. During this quarter, the City discussed the impact of this

contract on the Consent Decree deadlines in the May 26, 2009 meeting with the US DoJ, US EPA, and PA DEP. This quarter, the City has finalized the development of and advertised the RFP for GPS field data collection. A pre-proposal conference is scheduled for July 7th with proposals due July 21st. The City will use an expedited RFQ/RFP process for interview and selection. The projected schedule was included in the June 30, 2009 submittal for review and consideration.

(c) GIS Mapping of the Storm Water Collection System - In progress. The third phase for field data collection and GIS mapping is the storm water system. This will be included in the new GPS RFP discussed above.

26. Sanitary Sewer System Evaluation Program

(a) I/I Analysis by Subsystem

During this quarter, B&V and the City discussed the final draft I&I report. Also, the parties continued to discuss scheduling and coordination for the collection system investigative, mapping, modeling, and rehabilitative work.

1. Baseline Flow and Rainfall – In Progress. The flow monitoring and data reduction have been completed by B&V for the I&I analysis. A draft report was submitted to the City for review and comment. Limited reliable data was available for the existing system and tributary populations. Draft prioritization of areas and predictions for peak flows were developed; however, data is being refined as new information is received. The hydraulic modeling of the interceptors is a key to re-evaluating priorities based on projected bottlenecks that may exist. The City has met with all of the satellite municipalities to gather information on current and future populations, I&I mitigation programs, and definition of tributary areas.

2. Hydraulic Modeling – In Progress. The City has reviewed its system configuration and limitations for consideration in the selection of a hydraulic model. Based on the complexity of the system, B&V recommended a dynamic model named InfoWorks. Upon the receipt of a final data delivery from the GPS consultant on December 24, 2007, B&V set up and began calibrating the model. The data received still contained numerous apparent inaccuracies including incorrect pipe diameters which negatively impacts the hydraulic modeling. A detailed review of the data received was done to determine the extent of problems to be expected during the detailed hydraulic modeling. A test run of the hydraulic model with this data yielded 2700 errors which keep the model from running. In addition, there were 1800 warnings and 8800 information messages. This preliminary model run with the GPS data confirmed the concerns about the data quality. *The City has concerns about the schedule for completing the modeling based upon the ongoing issues with the quality of data received from the GPS field verification. This task is dependent upon the*

GIS mapping discussed above. The hydraulic modeling requirements were discussed explicitly in the GPS pre-proposal conference with the phases of work to expedite the areas necessary for the hydraulic modeling.

(b) Sewer System Evaluation Survey – In Progress. The process for the SSES was initiated with the flow monitoring program for the I&I analysis. The City worked with B&V to develop a manhole numbering system for the sanitary sewer system. A preliminary assignment of identifiers was made to manholes indicated on available historical mapping. The numbering system will be refined as the GPS field inventory is conducted and the City is able to resolve discrepancies found between record drawings and the actual infrastructure in the field. Although not explicitly required within the Consent Decree, the City has engaged B&V to develop a maintenance, operation and management (MOM) plan for the collection system in order to help set priorities and standardize operations of City sewer crews. The MOM plan is intended to serve as a guide for the execution of the required SSES as well as ongoing future maintenance of the collection system. B&V has provided draft technical specifications for additional system evaluation to be conducted in accordance with the I&I report recommendations. The smoke testing contract was awarded by City Council on September 22, 2008. Due to the time preparing and executing final contract documents, work was unable to be initiated prior to the freezing of the ground. This schedule was discussed this quarter with the work to be done late spring into early summer following the typical rainy season. The excessive precipitation this quarter has delayed this work which is anticipated to begin early in the third quarter. The smoke testing as well as other field investigative work is weather dependent.

27. Rehabilitation Plan – No progress. *The SSES is required to commence by May 7, 2008 while the dependent rehabilitation plan is due prior to the study on which it is based.*

28. Rehabilitation of Priority Areas of Collection System – No progress.

29. Wet Weather Operation Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 7, 2007. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

E. Pretreatment Program

30. General Duty – In progress. The City has an approved pretreatment program and continues to regulate industrial users in the collection system.

31. Enforcement Response Plan (ERP) Implementation – In progress. The City continues to follow the ERP in order to encourage compliance from all industrial dischargers. This is reported directly to US EPA with the quarterly compliance reports.

32. ERP - Penalty Escalation and Compliance Schedule – In progress. The City has been escalating penalties for all industries that are in significant non-

compliance for a given parameter for two consecutive quarters. This is reported directly with the quarterly industrial pretreatment status reports to US EPA. The City will continue with this reporting method for the future.

33. ERP – Order, Permit Revocation, and Federal Referral – In progress.

The City continues escalating the enforcement actions focusing on the financial penalties assessed to permittees who remain in significant non-compliance. The City continues issuing penalties for compliance issues that were not fined previously such as pH, late reports, late sampling, and late permit applications.

34. Local Limit Adoption by Contributing Municipalities – In progress. Most of the municipalities have adopted the City's sewer use ordinance providing permitting and enforcement abilities for the City with industrial users. All the municipalities with permitted industries have adopted the ordinance. US EPA provided the status from the 2005 audit listing the municipalities requiring ordinance adoption. This has been discussed with solicitors and directly with individual municipalities in question. Electronic versions of the City's sewer use ordinance have been provided to each municipality, engineer, and/or solicitor to prepare for adoption. The City has requested notification and proof of ordinance adoption be submitted. These are submitted to US EPA with quarterly reports and the annual report upon City notification.

35. Non-Residential Connection Evaluation and Investigation – In progress.

The City has been working with the contributing municipalities to obtain information in order to send a survey to evaluate nonresidential users that may be subject to the pretreatment program. This has been requested among other submissions from individual municipalities. This was also discussed with the municipal meetings conducted in 2007 and municipal field meetings conducted in 2008. The City will be requesting assistance from a consultant or temporary direct hire due to the large number of surveys and inspections required. The technical specifications for this RFP are under development and the City is determining which option will be employed for completing this work..

36. Increased Monitoring for Violators – In progress. The City continues to increase City sampling and self-monitoring for frequent violators. In general, permits may be amended or re-issued requiring multiple resamples for parameters with prior compliance issues. Some permits require increased frequency of monitoring for multiple quarters of compliance prior to returning to a less frequent self-monitoring schedule. Additional monitoring by both the City and the industry is being tracked and reported to US EPA quarterly.

37. Pretreatment Computerized Management System - In progress and continuing. The City continues data entry into a commercial pretreatment database as well as an abbreviated spreadsheet upon receipt of analytical results from both City and industrial sampling.

38. Local Limits Re-Evaluation – Completed. Evaluation submitted to US DoJ and US EPA on May 5, 2006. Comments were received from US EPA and the City initially worked with B&V to address the comments and concerns. The City will be evaluating options to complete addressing the noted concerns due to timing. The technical specifications for an RFP are under development, and the

City has begun investigating the use of temporary experienced direct hires to accomplish these tasks.

39. Quarterly SNC Reports to US EPA – In progress. The City continues to provide quarterly SNC reports to US EPA.

F. Funding

40. Funding – In progress. The 2009 budget was prepared and approved by City Council with the budgeted transfer amount remaining at \$3,000,000.

IX. CIVIL PENALTY

47. and 49. Penalty Amount and Payment Instructions – Completed.

X. SUPPLEMENTAL ENVIRONMENTAL PROJECTS: Angelica Stream Restoration

52. Details of SEPs listed below

- a) **Background** - Not applicable.
- b) **Goals of SEPs** - Not applicable.
- c) **Removal of excess sediment and soil stabilization SEP** – Completed.
- d) **Angelica Creek Restoration SEP** – Completed.
- e) **Angelica Creek Riparian Buffer SEP** – Completed.
- f) **Wetland Creation SEP** – Completed.
- g) **Flood plain Meadow SEP** – Completed.
- h) **Annual Maintenance and Access to SEPs** – Ongoing. Seasonal maintenance and mowing has begun.
- i) **Design Costs and Final Plan** – Completed.
- j) **Defendant Certification** – Not applicable.
- k) **SEP Completion Report** – Completed. Report submitted to US DoJ, US EPA, and PA DEP on January 30, 2008 as part of the 4th calendar quarterly progress report.

The Angelica Environmental Park ribbon cutting ceremony was held on July 28, 2008.

Additional Items related to Consent Decree

Personnel

Operator Certification – In 2005, the City administration supported management in both water and wastewater during AFSCME contract negotiations. Personnel in certain rank and file positions are given 24 months in which to pass the appropriate certification exams. New hires or transfers into operations are advised of the certification need initially and given materials to read and review as part of their orientation and training. Based on the AFSCME contract language, July 15, 2007 was the initial date for employees who were in operational positions 24 months ago to be required to be certified. From there, new employees' certification requirements are being tracked based on their position start date. The positions requiring certification are Fritz Island Operator (Plant Operator), Pump Tender, and Belt Filter Press Operator (Solids Operator). The first two positions each have four people to provide continual coverage while the last position currently has two people providing two shifts weekdays and weekend coverage as needed. The current AFSCME contract allows some additional flexibility related to uncontrollable changes in certification requirements due to process changes or regulatory changes. During the second quarter, there were no personnel transfers in these positions but some staff requested shift changes. The following table shows the updated certification status of the rank and file employees in the positions requiring certification.

Position	PA DEP Certification
Plant Operator - Day	A,E - 2,3,4
Plant Operator - Evening	A,E - 2,3,4
Plant Operator - Night	A,E - 2,4
Plant Operator - Rotating	E - 4 Passed exam A – 2
Pump Tender – Day	E - 4 Passed exam A – 2
Pump Tender - Evening	A,E - 2,4
Pump Tender - Night	A,E - 2,4
Pump Tender – Rotating	E - 4 Passed exam A – 2
Solids Operator - Day	Due 06/16/2010
Solids Operator - Evening	E - 4 Passed exam A – 2

The City also has certified employees in positions not requiring certification. This is being reported as there is interest in obtaining certification by employees not in positions where it is a requirement.

Position	PA DEP Certification
WWTP Laboratory Technician	A,E – 2,3,4
WWTP Service Utility	A,E - 1,2,3,4
System Equipment Operator 2	E - 4
System Equipment Operator 2	E - 4

Additional WWTP Upgrades –

Although not specifically discussed in the Consent Decree, the following upgrades are being included in the WWTP upgrades for technical and operational necessity of the required improvements.

New WWTP Outfall – During the first quarter of 2009, the City realized the need for a new outfall as B&V had done additional investigation on the current outfall pipe compared to the design flows for the WWTP upgrades. B&V has contacted PA DEP regarding the design constraints for this to be included in the WWTP upgrades. This will require additional permitting and coordination as the outfall is currently submerged below the Schuylkill River and proposed to remain that way. The construction permitting was discussed with the PA DEP and the US Army Corps of Engineers during the permitting coordination meeting this quarter. The additional boring required to advance the design has been scheduled for early next quarter including borings in the Schuylkill River.

Operations and Maintenance

19th Ward PS Monitoring –The chart recorder is a daily chart per the recommendations of the hydraulic engineer so this enhances the ability to review pump operations during adverse conditions. Additionally, the secondary wet well level sensor that controls the pumps under high flow conditions has a separate chart recorder added for monitoring particularly the duration of any overflows from this station. The system showed no overflows occurred during this quarter which was verified by operations staff performing routine inspections. This monitoring evaluation will continue as field-verified levels for potential overflows are determined. This quarter, no oil and grease problems were reported. A task force was formed to develop a response plan and related SOPs as well as a plan for connection point monitoring.

Computerized Maintenance Management System (CMMS) for Collection System– To adequately perform and document an ongoing infiltration and inflow program, catalog televisual inspection, and track service calls and repairs in the collection system, the City determined the need for a formal method to catalog the information. Geographical documentation of this information was the selected method for the database structure. The City has a static database of City information Woolpert has prepared for testing and training purposes. Woolpert made modifications to incorporate the existing work order format, priority, and assignment. Recurring safety and administrative functions are being incorporated into the existing CMMS and will be migrated into this software. Ultimately, this software is planned to be used in much of the Public Works Department.

A faster communication speed to City Hall servers is required to run the software efficiently as viewing the static database is rather challenging to our communication system. During the second quarter, the technology firm evaluated the options, developed a technical RFP for the primary and redundant service based on existing state contract providers, and compared the reliability, feasibility, and pricing of the proposed options for selection and implementation. This selection method was challenged so a professional services RFP was advertised and received by the City. During the evaluation and selection process, this was also challenged as the selection

method. The City's Information Technology division is now involved in attempting to address the communication speed problem.

42" Force Main and WWTP Influent Routing – A meeting was conducted with a potential developer desiring to develop the riverfront area in Reading surrounding the Sixth and Canal pump station. B&V submitted a feasibility study to compare the options and their associated costs. This situation is impacted by the hydraulics with the WWTP design and has been reviewed by the City and the PM/CM team. Due to the WWTP upgrades impact on hydraulics and the collection system in this area, this must be addressed shortly so as to not impact the design and construction schedule for the WWTP. This topic was discussed with City Council on several occasions as well as a public meeting conducted on May 27, 2009. On June 8, 2009, Council voted to authorize and direct B&V to incorporate the tunnel option into the WWTP design.

Laboratory and Administration

Land and Building – The City purchased a parcel of land in 2005 adjacent to the wastewater treatment plant to be used for the construction of a new building for the administration, laboratory, and collection system. The City purchased a second adjacent parcel in March 2007. The City intends to construct a LEED-certified, 'green' building and an access bridge across the Mifflin Arm of the Schuylkill River to the WWTP. On February 23, 2009 City Council awarded the civil engineering services contract to Herbert, Rowland & Grubic (HRG) and the architectural services contract to Seiler + Drury (S+D). Each firm's contract documents have been executed. Of note, sketch plans for land development review and consideration have been submitted to Cumru Township's Planning Commission to introduce the project at their June meeting. Late in June, plans were submitted for consideration for final approval at their July meeting. The individual firms' detailed summary of work for the second quarter follows.

Administrative

Contributing Municipalities - The City and B&V met individually with the municipalities that contribute flows to the City's wastewater system and plant to provide background information and the City's current status including technical information related to the Consent Decree requirements. Also, the City wanted to obtain current status of flow projections and I&I reduction efforts. Some municipalities and authorities had their own staff or officials in addition to the appropriate engineers. In addition to the Consent Decree requirements for plant upgrades and system projects, the need for municipal adoption of the City's sewer use ordinance was discussed as well as the need for ongoing communication regarding non-residential customers both being related to the industrial pretreatment program. Finally, the process to be followed when planning for new development and the use of PA DEP planning modules were discussed as well.

Field meetings were conducted in the spring and summer of 2008 to inspect each connection point, metering location, and terminal pumping stations to the City system as well as available mapping for the system. This information is being used to develop more accurate service area mapping by connection point. Follow-up meetings have been conducted to view interconnection points between contributing

municipalities and additional information requests have been made based upon the findings of each meeting.

Intermunicipal agreements (IMAs) were reviewed briefly as they are a shorter duration than what is used for planning purposes for the capital improvements plan. The City solicited proposals from legal firms to assist in the evaluation of the existing IMAs and renegotiation of new IMAs. Two proposals were received on May 27th with interviews, selection, and Council award of the contract following quickly. A kickoff meeting with Fox Rothschild was conducted June 29th.

Funding - Some key aspects of funding clarification were added to the RFP for the WWTP PM team discussed above in paragraph 20. This forensic review is an initial task by the PM team with details listed in their report. Also, this quarter, the City responded to requests for additional information related to the prior H2O PA grant application and learned that the funding decision for the first round of applications is to be announced on July 13th. A US EPA STAG funding application was submitted during the second quarter and inquiries were made as to how to receive the STAG funds designated for the City in the 2009 federal budget. Meetings were conducted with various agencies regarding financing the capital improvements. These tasks were done by the PM team and are included in their report.

Response Times and Clarifications – The City continues to work in good faith on compliance issues outlined within the Consent Decree. There is concern regarding delays in regulatory responses for questions posed during meetings or within progress reports. As investigative field work in the collection system intensifies, previously identified concerns regarding timeline discrepancies within the Consent Decree become more evident. Clarification is critical to allow the City to balance the allocation of resources in efforts to maintain compliance.

PA DEP Meetings – B&V has been in telephone contact with PA DEP on several permitting issues relative to the WWTP design.

NPDES Permits and Limits – A May 28, 2009 NPDES draft permit was received from PA DEP for the permit which expired on May 1, 2006. The City reviewed the draft limits and began preparing a comment letter to discuss the permit changes as well as the requested information to be incorporated. As discussed in a May 2008 meeting with the permit writer, the final NPDES Part I discharge permit is not anticipated to be released prior to the Part II construction permit per the PA DEP policy when improvements are being planned for a facility.

VI. REPORTING REQUIREMENTS

41. Report Contents and Certification

- (a) **Remedial Measures Paragraphs 7 through 40** – See above numbered sections.
- (b) **Anticipated Problems** – See italics in above numbered sections.
- (c) **Additional Matters** – See italics in above unnumbered sections.
- (d) **Certification Statement** –

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted, is to the best of my knowledge and belief, true, accurate, and complete.



Deborah A.S. Hoag, P.E.
Utilities Division Manager

07/30/2019
Date

Black & Veatch WWTP Design Engineering Progress Report Second Quarter 2009 Summary

Project Management

- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Participated in weekly coordination conference calls with the City and PM/CM.
- Provided budget and schedule impacts associated with delayed decision on Sixth & Canal conveyance option.
- Met with City and PM/CM on April 2, 2009 to discuss project status.
- Received notice to halt work on Influent Pump Station and Headworks at April 2, 2009 meeting.
- Received notice to proceed with Level 1 design, including 3D design, at April 2, 2009 meeting.
- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Participated in weekly coordination conference calls with the City and PM/CM.
- Assisted with preparation for meeting with USDOJ and PADEP to discuss Consent Decree.
- Attended Meeting with Council on May 18th to discuss project status
- Attended meeting with USDOJ and PADEP on May 26, 2009.
- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Participated in weekly coordination conference calls with the City and PM/CM.

Project Controls

- Revised and resubmitted baseline schedule and trended baseline schedule.
- Reviewed Bid Package #1 as proposed by the PM/CM.
- Submitted trended, progressed schedule through May 3, 2009.

Presentations to City Council

- Briefed City Council on tunnel option for conveyance of wastewater from 6th & Canal on April 20, 2009.
- Attended Council meetings June 9th and 29th

Permitting

- Working on stormwater management and joint application permitting activities.
- Submitted PNDI and PHMC applications
- Coordinated habitat assessments for the Red Bellied Turtle.
- Began coordinating with HRG on Lab/Admin project permitting
- Working on stormwater management and joint application permitting activities.
- Submitted PNDI and PHMC applications
- Coordinated habitat assessments for the Red Bellied Turtle.
- Began coordinating with HRG on Lab/Admin project permitting
- Worked with Berks County Conservation District and PADEP to define stormwater permitting requirements
- Worked on the development of the Environmental Assessment form
- Reviewed existing and proposed site conditions for stormwater calculations

- Developed and transmitted to City responses to DOJ questions.
- Coordination with regulators for coordination meeting.
- Coordination with HRG on turtle surveys for PNDI.
- Developed letters for variances.
- Coordination with PHMC.
- Reviewed draft TDS limits from regulators.
- Coordinated with Century Engineering on grass investigations for PNDI.
- Working on stormwater management and joint application permitting activities.
- Continued to coordinate with HRG on Lab/Admin project permitting.
- Worked with Berks County Conservation District and PADEP to define stormwater permitting requirements.
- Worked on the development of the Environmental Assessment form.
- Reviewed existing and proposed site conditions for stormwater calculations.

Site Investigations

- Continued working with new surveying subconsultant to finalize the site survey.
- Finalized subcontract with Barry Isett Associates. Provided BIA fee to City.
- Developed scope for subsurface and river investigations for the new outfall.
- Continued working with new surveying subconsultant to finalize the site survey.
- Finalized subcontract with Barry Isett Associates. Provided BIA fee to City.
- Developed scope for subsurface and river investigations for the new outfall.
- Met with Cumru township on May 27th to review force main routing
- Completed river survey (hydrographic and seismic)
- Received approval from City to ask surveyor to extend scope to 6th and Canal Area
- Continued coordination with BIA on surveying efforts.
- Performed survey work at 6th and Canal under direction from City

Geotechnical Services

- Developed boring plan for Outfall, mine area probes, and substation areas

SCADA Review

- Conducted SCADA workshop on May 5th to review TM #5.
- Conducted P&ID introduction on May 6th
- Provided City suggested formats for vendor meetings
- Provided pro and con list for selected SCADA vendors, as requested by City

Preliminary Engineering Report

- Submitted revised PER with VE changes for submittal to PADEP.
- Submitted track changes version of document as requested by the City.
- Worked on edits to PER based on comments received from City on June 19.
- Worked on edits to PER based on Level 1 workshop comments.

Value Engineering Support

- Participated in conference calls with City and PM/CM to discuss hydraulic profile.
- Provided hydraulic profile calculations to the City and PM/CM.
- Prepared cost impacts review for raising the hydraulic profile and eliminating the effluent pumping station.
- Provided additional information on digester cover alternatives.

- Reviewed digester gas production and storage needs
- Briefed the City staff and City Council on the tunnel option for conveyance of wastewater from 6th & Canal.
- Provided additional cost information on the digester cover alternatives.
- Participated in conference calls with City and PM/CM to discuss hydraulic profile and plant elevations.
- Provided update to solids alternative report.

Level 1 Detailed Design

- Worked on abbreviation nomenclature for equipment, piping and valves.
- Worked on development of Level 1 submittal including:
 - Updating system P&IDs
 - Preparing site grading and yard piping plans.
 - Performing preliminary structural design of all structures.
 - Preparing 3D models of buildings.
 - Preparing plans and sections showing equipment and piping for 2D structures.
 - Preparing major process equipment specifications.
 - City identified IDI as the basis for UV design
 - Confirmed with the City the siting of a drain pump station in the location of the existing cogen bldg.
- Prepared and submitted Level 1 documents including:
 - Hydraulic Profile
 - Process Flow Schematics
 - Site Demolition Plans
 - Site Grading, Staking & Erosion Control Plans
 - Site Yard Piping Plans
 - Architectural Perspectives and Elevations of all new buildings
 - Architectural Plans of Operations and Maintenance Building
 - Preliminary Design 3D models of all new buildings
 - Plans and sections of all process structures
 - P&IDs
 - Process equipment specifications
- Provided abbreviations listing to City for review
- Generated color version of site plan and project phasing
- Reviewed locations for FOG and vector truck unloading
- Continued layout of utility water system
- Conducted NavisWorks training on June 3, 2009.
- Conducted Bid Package #1 workshop on June 4, 2009
- Performed QC review of Level 1 submittal.
- Prepared and submitted Level 1 Opinion of Probable Construction Cost.
- Prepared and submitted Level 1 Opinion of Probable Construction Cost for Bid Package #1.
- Conducted Level 1 Workshop on June 17-18, 2009.

FOG Facility Design

- Performed site visit to Derry Township FOG facility
- Development of site plan alternatives for FOG and vector unloading areas

New Electrical Substation

- Coordinated with the City and MetED regarding the need for a new electrical substation to serve the new WWTP.
- Met with City and Met Ed to discuss power supply options and relocation of existing service.
- Provided initial load projections and summary of communications with MetED to the City.
- Coordinated with the City and MetED regarding the need for a new electrical substation to serve the new WWTP.
- Met with City and Met Ed to discuss power supply options and relocation of existing service.
- Provided initial load projections and summary of communications with MetED to the City.
- Coordinated follow-up meeting to review and discuss existing overhead power relocation.

Cumru Township Coordination

- Provided memo to Cumru Township on conceptual cost opinions for Flying Hills conveyance

Hill/Weston Solutions/Hazen & Sawyer
WWTP Upgrades PM/CM
Second Quarter 2009 Progress Report

Project Management (Hill):

- Participated in several client meetings: Design Updates, City Manager briefs, B&V design schedule reviews, Police firing range, mayor update, OCIP coordination.
- Participated in several internal coordination meetings with PM/CM team.
- Prepared several documents: PMP, DoJ briefing matrix, meeting minutes, draft PMP, construction scheduling letter and action items tracker and B&V RFI documents.
- Reviewed, drafted and finalized PM/CM recommendations as to B&V's most recent design schedule submission.
- Reviewed hydraulic grade line issue with PM/CM team and City.
- Performed required administration functions: invoice preparation, meeting coordination, subcontractor and client scheduling coordination,
- Performed required administration functions: invoice preparation, meeting coordination, subcontractor and client scheduling coordination,
- Participated in several client meetings: City Council brief, Design Updates, City Manager briefs, B&V design schedule reviews, mayor update, City Environmental Chief, and Cumru Township workshop.
- Participated in several internal coordination meetings with PM/CM team.
- Reviewed draft PMP, historical model submissions, and financial analysis deliverables.
- Reviewed and provided analysis and briefings on several Schedule related work products (BV submission, Construction Schedule).
- Participated in and prepared a briefing for the DoJ meeting. Attended a pre-meeting and participated in several conference calls related to the meeting.
- Reviewed BV Level 1 submission and prepared for an internal PM/CM Level 1 workshop.
- Reviewed draft EPA funding documents.
- Performed required administration functions: invoice preparation, meeting coordination, subcontractor and client scheduling coordination,
- Participated in several client meetings: Design Updates, City Manager briefs, City Council update, DoJ preparatory meetings, Legal Kickoff meeting, Regulatory Meeting, Level 1 workshop and Bid Package #1 strategy sessions; prepared a Bid Package #1 Action Items Matrix.
- Participated in several internal coordination meetings with PM/CM team; participated in several OCIP coordination meetings.
- Participated in and prepared a briefing for the DoJ meeting. Attended a pre-meeting and participated in several conference calls related to the meeting.
- Prepared DoJ master schedule and other supporting deliverables.
- Updated Value Engineering report.

Project Controls (Hill):

- Reviewed and provided comments on B&V latest design base line schedule.
- Draft PMIS manual completed.
- Designed action item tracking system.
- Renewed web based application logins and added new as required

- Participated in Design issue phone meetings.
- Drafted meeting minutes.
- Attended a designer's Schedule and Bid Package meeting in Reading.
- Incorporated Latest B&V Schedule into master schedule
- Started analysis of B&V schedule "trends" and actuals information provided
- Incorporated all previous meeting minutes into new system and republished.
- Drafted Design Update meeting minutes.
- Drafted slides, and briefing notes for DoJ presentation.
- Participated in several PM/CM coordination conference calls and design update conference calls.
- Drafted Design Update meeting minutes.
- Scanned, filed, distributed and posted several documents for project team.
- Continued review of B&V last schedule submission.
- Drafted slides, and briefing notes for DoJ presentation.
- Prepared draft master DoJ schedule.

Value Engineering: N/A

Design Review/Tech Support: (Hazen-Sawyer and Weston):

- Provided input to the Open Items Action Log.
- Attended Weekly Design Update meetings.
- Provided review of B&V UV Evaluation Technical Memorandum
- Provided review of B&V Hydraulic Grade Line.
- Provided review of Peer Review responses. This task is on-going.
- Provided input to the Open Items Action Log.
- Attended Weekly Design Update meetings.
- Reviewed revised PER electrical sections
- Review of Biotin Model and process.
- Review of TM 1 and model set up
- Review of TMs, PER, Drawings, support to VE team and PER review team
- Oversight of review team and performed review of TM 2, TM 8, and PER.
- Attended Weekly Design Update meetings.
- Attended Weekly PM/CM coordination meetings.
- Reviewed the designer's Level 1 submission documents.
- Reviewed PLC and SCADA alternatives.
- Attended several meetings and workshops including: 3d Modeling workshop, bid package workshop, Level One – part one workshop and permitting meetings.
- Met with Owner to review Peer Review comment responses.
- Provided evaluation of SCADA software and PLC equipment selections.

Regulatory Compliance: N/A

Grant Funding (Duane Morris):

- Prepared and updated financial information.
- Participated in meetings and teleconferences.
- Prepared memo on project commencement and letter of No Prejudice and "Or Equal" Condition.
- Conducted necessary Administration functions such as invoicing and reporting.

- Participated in PM/CM Weekly conference calls
- Reviewed information to be submitted for EPA STAG Request
- Participated in DoJ preparation meetings including preparing financial status slides for upcoming presentation.
- Researched Build America Bonds and DEP Watershed Grant Program and provided written analysis.
- Prepared status updates for H2O PA Application, and DCED information requests
- Reviewed e-mail from Charles Jones and prepared draft letters to respond to DCED request for info.
- Participated in PM/CM Weekly conference calls.
- Participated in bid package workshop.
- Participated in design conference call(s).
- Continued progress on H2O and Penn Vest funding requests.

Financial Analysis: (PFM):

- Prepared for and participated in several meetings and conference calls, both internally and externally.
- Continued development of Pro Forma model.
- Updated Historical Model.
- Prepared for and participated in several meetings and conference calls, both internally and externally (i.e. Financial Committee meeting).
- Continued development of Pro Forma model.
- Continued development of Pro Forma model.
- Met with City legal team to discuss municipal agreement.
- Attended various meetings about Pro Forma model

Public Relations: N/A

Surveying: N/A

Construction Management (Weston):

- Attended meeting regarding proposed Firing Range.
- Attended meeting to discuss design schedule, construction packages, and program schedule.
- Worked on development of construction schedule with Hill Intl.
- Attended design conference call.
- Prepared letter documentation for construction schedule development.
- Attended meeting at City to discuss bid packages, schedule and Council presentation.
- Contacted various pre-stressed tank vendors.
- Attended project meeting conference call.
- Attended design conference calls
- Contacted various pre-stressed tank vendors
- Attended project team meeting conference calls
- Reviewed B&V HGL evaluation and cost estimate
- Developed construction schedule and bid package analysis
- Attended design and project team conference calls.
- Reviewed Level 1 Documents.
- Attended level 1 3-D workshop.

Resident Engineer: N/A

Inspection: N/A

Health and Safety: N/A

Start-up: N/A

Herbert, Rowland & Grubic
Utilities Building Civil Engineering Services
Second Quarter 2009 Summary

Concept Plan Review / Charette

- Attend project team meeting to review concept site and building plans
- Discuss potential LEED credits

Preliminary Sketch / LEED

- Coordinate with client and architect
- Review multiple iterations of proposed building
- Prepare additional alternate concept site and grading design sketches for review
- Attend project team meetings and conference call with architect
- Distribute plan for preliminary pricing as requested
- Coordinate with client and architect
- Develop concept site and grading design sketches
- Attend project team meetings
- Coordinate with Township and attend meeting to review potential Zoning issues
- Prepare and submit Sketch Plan for Township review

Wetlands Delineation

- Progress on wetlands report
- Review and distribute completed Bog Turtle Habitat consultant report
- Pursue agencies regarding potential Red-Bellied Turtle question
- Coordinate with client, WWTP project manager, and consultants to obtain proposals regarding (1) Red-Bellied Turtle habitat survey for the Utilities Building project and the WWTP project, (2) Bog Turtle Habitat survey for the WWTP project, and (3) Vegetation survey for the WWTP project
- Completion of delineation report and exhibits

Carbonate Geology Report

- Completion and distribution of carbonate geology report
- Begin to coordinate future soils investigations (infiltration properties)
- Soils investigation to assess infiltration properties
- Coordinate with Architect regarding structural soils work

Preliminary LD Plan

- Initial work to develop list of items to accompany Preliminary Plan submission
- Coordinate with Client and attorney
- Attend Township Commissioners meeting regarding plan process waiver request
- Prepare and complete Land Development plan sets (including layout, grading, landscaping, lighting, etc.) and application forms for Cumru Township and Berks County
- Deliver packages to Township

Stormwater Management

- Coordinate with Township Engineer for responses to stormwater questions
- Develop drainage area maps

- Develop conceptual storm system layout and storage design.
- Progress on drainage area maps, conceptual storm system layout and detention design
- Completion of drainage area maps, storm system layout, detention design, and reports

E&S / NPDES

- Initial review of water quality volume and recharge requirements
- Progress on water quality volume and recharge requirements
- Meeting with BCCD staff
- Progress on water quality volume and recharge requirements
- Progress on E&S / NPDES measures and application forms
- Coordinate with BCCD regarding submission timing vs. PNDI status

Traffic Impact Study

- Submission of TIS scoping letters to Township and PennDOT
- Review Township response to proposed Impact Fee calculations
- Discussions with client regarding Township response to proposed Impact Fee calculations
- Submit response letter
- Set and remove traffic counters
- Obtain sight distances and accident data and incorporate into report
- Completion of Traffic Impact Study
- Submission to Cumru Township

Driveway HOP

- Investigations regarding paving spec
- Review of road ROW and driveway comments from PennDOT response letter
- Response to road ROW and driveway comments from PennDOT letter

Water Capacity

- Request to Architect for water demands
- Coordinate with Architect to obtain water demands
- Submit water capacity request letter to RAWA

Sewer Capacity

- Initial research into Module process
- Coordinate with Architect to obtain sewage demands
- Submit sewer capacity request letter to Township

Water Pressure Test

- Coordinate with Architect and Client regarding available flow and pressure at the site

Survey

- Progress on survey base map and integration of prior ALTA survey
- Additional field survey to pick up portions of the site where topography differs from the ALTA survey
- Edit base map
- Completion of base map edits
- Preliminary (completeness) review of title information provided by the Client

- Request manhole connectivity information

Coordination with WWTP Team

- Emails with client and WWTP design project manager regarding layout of island improvements and agency responses to PNDI searches
- Emails with client and WWTP design project manager regarding layout of island improvements and to obtain project information to support habitat and vegetation surveys
- Coordinate with Client, WWTP design project manager, and Herpetological Associates to obtain revised proposals for bog turtle survey (WWTP) and red bellied turtle survey (all projects)

Bridge Design

- Progress on alternative crossing alignments
- Review with architect and client
- Coordinate with U.S. Coast Guard to obtain “no permit needed” letter

Bridge Additional Survey

- Completion of stream cross sections and topography for island side of stream crossing
- Integrate into overall project base map

Bridge Design

- Development of alternate alignments and profiles for stream crossing
- Send to Client and WWTP design project manager for comments

Permitting

- Initial work on cross sections and existing conditions hydraulics
- Progress on stream cross sections and existing conditions hydraulics
- Onsite meeting with ACOE and PADEP
- Discuss wetlands, stream, and permitting issues
- Prepare and distribute meeting minutes
- Follow up with agency representatives
- Confirm drainage area to onsite ditch
- Prepare PHMC submission

Seiler + Drury
Utilities Building Architectural Services
Second Quarter 2009 Summary

Architectural services began during the month of April and included the following general project on-site meetings.

Valley Forge Lab Review Meeting of April 3rd
Schematic Design / Floor Plan Layout Meeting of April 7th
Consultant Coordination Meeting of April 10th
LEED Workshop Meeting of April 24th

Extent of services during this time period focused on further development of the project's Schematic Design including review of specific design requirements of specialized facilities including the lab and other user areas. This includes development of building exterior elevations, initial building system coordination review, and preliminary understanding of requirements and considerations for delivery of a LEED certified building. An initial pricing set was developed and distributed to Burkey Construction on April 20th as well as a preliminary scope of work to outline potential material selections.

Project Progress includes development of the following items:

- 1) Floor Plan Revisions
- 2) Preliminary Building Elevation Studies
- 3) LEED Presentation and workshop
- 4) Preliminary Work Scope and Pricing Set
- 5) Preparation of Meeting Minutes per individual meetings and phone conferences.

Architectural and engineering services continued during the month of May and included the following general project meetings.

Schematic Design pre-final progress meeting of May 12th
Consultant coordination meeting of May 15th (SD office)
Lab coordination meeting of May 28th

Extent of services during this time period focused on finalizing the project's Schematic Design including review of specific design requirements of specialized facilities including the lab, garage, and other user areas. This includes revision of building exterior elevations and building systems coordination review. A final schematic set was developed and distributed to Burkey Construction on May 14th.

Project Progress includes development of the following items:

- 1) Floor Plan Revisions
- 2) Building Elevation Revisions
- 3) Preparation for Township Planning Review Meeting of June 1
- 4) Schematic Design Work Scope and Pricing Set
- 5) Coordination of Proposals for Site Geotechnical Engineering Investigations
- 6) Coordination of Proposals for Building Commissioning Services
- 7) Meetings with Potential Material Representatives and Finish Suppliers
- 8) Preparation of Meeting Minutes per individual meetings and phone conferences.
- 9) Begin Design Development Set for mid June submission.

Architectural and engineering services continued during the month of June and included the following general project highlights.

Cumru Township Planning Meeting of June 1st

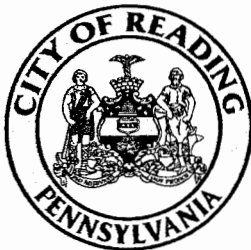
Consultant coordination meeting of June 11th

Submit Completed Design Development Set on June 15th

Extent of services during this time period focused on finalizing the project's Design Development Set for Owner review and comment. Design team has begun development of final project construction documentation phase.

Project Progress includes development of the following items:

- 1) Received completed Site Geotechnical Engineering Investigations
- 2) Prepared and submitted Contract Amendment 001 – for Building Commissioning services
- 3) Attend Township Planning Review Meeting of June 1
- 4) Meetings with Potential Material Representatives and Finish Suppliers
- 5) Preparation of Meeting Minutes per individual meetings and phone conferences.
- 6) Submitted Complete Design Development Progress Set



CITY OF READING, PENNSYLVANIA

UTILITIES DIVISION
WASTE WATER TREATMENT PLANT
815 WASHINGTON STREET
READING, PA 19601-3690
(610) 655-6258

PUBLIC WORKS
DEPARTMENT

October 30, 2009

Ms. Margaret L. Hutchinson, Esq.
Assistant United States Attorney
Civil Division Eastern District of Pennsylvania
615 Chestnut Street
Suite 1250
Philadelphia, PA 19106-4476

Re: City of Reading Consent Decree
Calendar Quarterly Progress Report
3rd Quarter 2009

Dear Ms. Hutchinson:

In accordance with Section VI Reporting Requirements, Paragraph 41, you will find enclosed the City of Reading's Calendar Quarterly Report. This documents progress and status on the implementation of Section V Remedial Measures described in Paragraphs 7 through 40. Please feel free to contact me at 610-655-6258 should you have any comments or questions.

Sincerely,

Deborah A.S. Hoag, P.E.
Utilities Division Manager

DH/eh

Cc: Christopher A. Day, Esq., US EPA
✓ Lisa Trakis, US EPA
Lee McDonnell, PA DEP
Shawn Arbaugh, PA DEP
Charles M. Jones, P.E., Director of Public Works
Ralph E. Johnson, Superintendent
Stephen K. Hydro, P.E., Black & Veatch
Anthony C. Vesay, P.E., Hill International
Keith Mooney, Esq., Legal Counsel
file



**City of Reading Consent Decree
Calendar Quarterly Progress Report
Period Ending September 30, 2009**

V. REMEDIAL MEASURES

A. General Duties

7. Duty to Comply with Permit – In progress. The City's wastewater treatment plant had no NPDES permit violations during this quarter.

The City had received a June 19, 2009 Notice of Violation from PA DEP for exceeding the instantaneous maximum concentration limit for an ammonia grab sample during the May 13th facility inspection and sampling event. An internal investigation was conducted due to the disparate analytical results on a sample split with PA DEP analyzed by the City's PA DEP accredited laboratory. This quarter following the completion of a review of the quality control data made available by the PA DEP Bureau of Laboratories in support of their results, the City made a written request to include the City's sampling results from their PA DEP accredited laboratory's split sample. Following US EPA criteria, these results would be averaged with the result demonstrating permit compliance. No response has been received to date.

8. Operation and Maintenance of the Facility – In progress. The City continues formalizing and documenting the operational and maintenance procedures related to the treatment plant, pump stations, collection system, and laboratory.

B. Interim Measures

9. Interim Compliance – Environmental Management System

(a) Submission – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. *The City awaits a response for the approval of the system and its components listed below as proposed.*

(b) Maintenance Management System - Continuing progress. The City continues the planned implementation of improved and expanded use of the Antero computerized maintenance management system. This ongoing increased use of the maintenance management system includes recurring work orders for maintenance upon discovery of the unaddressed cause of any problem. The use of this system is treated as an ongoing tool for the facilities' operations and maintenance. The wastewater treatment plant will migrate to the new CMMS being developed for the collection system due to the interrelated operations and maintenance activities.

(c) Supervisory Control and Data Acquisition (SCADA) system

1. Interim SCADA System – Completed and certified.

2. Upgrades to SCADA System – Not applicable. Upgrades not required based upon the submission and approval of paragraph 18. While not required by the Decree, the City continues progress with this operational tool in planning for the future plant improvements and ensuring operational consistency. Black & Veatch (B&V) has been

retained to oversee the SCADA development for consistency and the development of standards and conventions for future use in the plant upgrades. Additional operational parameters continue to be added to the SCADA system. Troubleshooting is on-going regarding report generation and historical trending. The City has worked with B&V to develop the target enhancements to address this year with the existing SCADA system alarm annunciation and history, security, program documentation, and hardware and software upgrades. B&V completed a field visit for the installation during the third quarter and subsequent troubleshooting in some areas. Finally, options to utilize the SCADA system as a reference tool continue to be used for improvements to facility operations and maintenance.

(d) Pretreatment Data Management System – Continuing progress.

The City continues the ongoing data entry into a commercial pretreatment database as well as an abbreviated spreadsheet as analytical results are received from both City sampling and industry self-monitoring.

10. Interim Plant Influent Monitoring – Completed and continuing as required.

The City had compared two meters on the force main from the Sixth and Canal pump station (6&C PS) to the WWTP. One is close to the 6&C PS while the other is at the WWTP. Previously, the City had used the meter at the WWTP for the influent loading calculation. The City investigated the 42" force main routing for any causes of disparity in metering. Due to the age (1959) and condition of the primary device associated with the WWTP meter, the newer, non-invasive 6&C PS flow meter has been used from this point and investigations on flowmeter accuracy will be done retrospectively. Beginning with the 2009 annual report to PA DEP, this calculated data absent recycle loads will be used for influent load comparisons for annual reporting. This will continue until this is no longer required due to physical changes to the influent lines for both sampling and metering flow.

As part of the influent monitoring, the City monitors the recycle flows as calculated from this influent load and the WWTP influent with recycles. A team has been created to evaluate and resolve questionable WWTP recycle loading data. This team has been assessing sample and flow data to determine the cause for what appears to be erratic or erroneous WWTP recycle data. A flow meter was added and sampling locations and techniques are being compared to assure representative samples are collected. Trending and comparisons to plant maintenance schedules have been determined to be part of the disparity and the team is continuing to investigate other influences. In the second quarter, a pump was added for mixing to ensure the sample obtained for comparative purposes is representative of the influent with recycles and not subject to influences based upon location. Additional sampling from various locations contributing to this location will be planned to assess this. Results of this ongoing assessment will continue to be provided.

11. Interim Trickling Filter Performance Measures – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and

the request to change sampling locations for trickling filter continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

(a) Performance Improvements – Completed and ongoing as part of the Operations and Maintenance plan using the Computerized Maintenance Management System.

(b) Unit Efficiency Monitoring Recirculation Rate – Completed.

(c) Recirculation Rate - Completed with flow monitoring continuing for the primary recirculation. Since the identification of available piping, secondary trickling filter recirculation has been in continual use. The combined recirculation was increased to 75% with marked improvements in the biological growth noted on the secondary trickling filters. City staff has made physical modifications to improve the flow metering for the secondary recirculation rate.

(d) Longer Term Monitoring and Reporting – Completed and continuing with modified locations as approved.

12. Process Control Testing – Completed and continuing as required. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the request to change sampling locations for treatment units' continuing monitoring. Response received from PA DEP on May 23, 2006 acknowledging compliance.

13. Dangerous Gas Detection – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on February 7, 2006. Inspection and calibration are being done routinely and repairs are made when noted upon inspection.

14. Certified Plant Operators – The City currently has six shift supervisors who are assigned in categories as follows: day, evening, night, and rotating shifts, operational maintenance, and administrative. The supervisors began continuous coverage on November 1, 2006 as scheduled. To ease the tracking of licensed employees for the facility, a table has been developed for the facility's shift supervisors, and related City management staff. The facility currently requires a PA DEP Class A-2 for the plant and an E-4 for the collection system. These dual certification requirements have been extended to appropriate plant staff as they are also responsible for the pump station in the collection system. Shift supervisors, by virtue of their written job description, are required to pass the appropriate certification examination within twelve (12) months of hire or promotion into the position and all have done so. Most of the shift supervisors are new to the wastewater field. As a result, they are required to obtain the requisite operating experience prior to being issued their certification. During the third quarter of 2009, there were no changes with shift supervisors. All shift supervisors have received the appropriate PA DEP operator certification for the current facility as detailed in the table below.

The selected treatment alternative, as approved under Paragraph 18, requires an A-1 certification which is not currently required for the existing treatment plant. Most managers already possess this certification and some of the shift supervisors have studied and taken the activated sludge module in advance of the construction to be prepared for the plant's transition from trickling filters to activated sludge.

Additionally, the City has been discussing flexibility with the certification wording with the AFSCME local representing first level supervisors so that changes in technology or certification requirements do not require additional contract negotiations. One shift supervisor has passed the examination required for activated sludge and awaits the new plant to obtain the certification.

Employee	Title	PA DEP Certification
Charles M. Jones, P. E.	Director of Public Works	A,E – 1,2,3,4
Deborah A. S. Hoag, P. E.	Utilities Division Manager	A,E – 1,2,3,4
Ralph E. Johnson	Wastewater Superintendent	A,E – 1,2,3,4
Roger D. Hillibush	Operations Supervisor	A,E – 1,2,3,4
Russell L. Stoudt	Maintenance Supervisor	A,E – 1,2,3,4
Jackie C. Hendricks	Environmental Program Coordinator	A,E – 2,3,4
Amy L. Morriss	Laboratory Supervisor	A,E – 1,2,3,4
John P. Farrier	Systems Superintendent	E – 4
Gregory R. Fetter	Shift Supervisor – Operational Maintenance	A,E – 1,2,3,4
Robert E. Gensemer	Shift Supervisor - Administrative	A,E – 2,4
George E. Fultz, II	Shift Supervisor – Day	A,E – 2,4
Felix V. Stacherski	Shift Supervisor – Evening	A,E – 2,4
Daniel J. Dixon	Shift Supervisor – Night	A,E – 2,4 Passed 1,3
Roger R. Spitler	Shift Supervisor – Rotating	A,E – 1,2,3,4

As discussed in the March 21, 2006 meeting (and the July 10th telephone conference), the new supervisory employees do not have specific wastewater experience prior to their hire but are required to pass the certification exam within twelve months of hire. PA DEP certification experience and training requirements do not allow the issuance of the operator certification based solely on the passing of the examination. The City suggested changing from “individual shall be required to *obtain certification* within 12 months of the date of hire” to “individual shall be required to *pass the certification examination* within 12 months of the date of hire.” The City received a letter dated June 16, 2009 from PA DEP concurring with the language amendment.

15. Operations and Maintenance Plan - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 5, 2006. Progress continues with future planned activities as discussed in the submitted plan. In the assessment of key processes, the City took action to eliminate bottlenecks and vulnerabilities to improve the performance of the existing plant. This was done as a necessary step to ensure regulatory permit compliance until the construction and start-up of the new facilities. These are the interim improvements required in the Capital Improvements Plan. The City continues to make additional improvements beyond the initial assessments as part of the continual reevaluation and optimization of plant operations. In the third quarter, operational focus unexpectedly switched to primary digestion when an internal biogas line repair became complicated. The digester had been out of service recently for inspection, testing, and repair of the biogas system including cover integrity. While out of service for the biogas line repair, biosolids were discovered in the lid’s attic which

impacts operation. After reviewing the primary digester's floating cover's abandonment, replacement, repair and other options, the most cost effective solution was to repair the cover. A contractor is performing the emergency repairs which are predicted to extend the life an additional seven to ten years. The City's intention to continue with preparations for the reduced summer permit limits that are effective in May was delayed by the above digestion focus. Equalization of recycle waste strength was one area identified to improve the reliability and consistent treatment in order to achieve permit compliance during the summer limit season with lower temperatures. The options for equalizing the higher strength dewatering filtrate by reviewing the feasibility to use existing tanks and piping were reviewed while determining the impact on other operations and construction costs. The goal is to have the construction complete in time for 2010's change to summer permit limits.

16. Staffing Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 30, 2005.

17. Interim Wet Weather Operational Strategy - Completed. Plan submitted to US DoJ, US EPA, and PA DEP on November 7, 2006. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

C. Long Term Evaluation and Construction Schedule

18. Treatment Plant Alternatives Submission – Completed. See below.

(a) Existing Plant Process Evaluation Report – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the validity of the evaluation presented. Response received from PA DEP on May 23, 2006 acknowledging compliance.

(b) Evaluation of Treatment Alternatives Report – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 17, 2006 and formal presentation of the report and findings conducted at March 21st meeting. Response received from US DoJ and EPA on May 3, 2006 approving the submission and the selected liquid and solids treatment technologies. Response received from PA DEP on May 23, 2006 acknowledging compliance. At the May 26, 2009 meeting, the City requested the ability to have the regulators re-consider the biosolids handling alternatives and selection based upon changes in the regulatory, environmental, and economic climate in the past few years. The revised information B&V originally prepared for the City's review and consideration was submitted to US DoJ, US EPA, and PA DEP on June 30, 2009 for review and consideration.

19. Capital Improvements Plan – Completed. Report submitted to US DoJ, US EPA, and PA DEP on February 16, 2007. Preliminary costs for biological treatment and solids handling facilities were developed as part of the plant and treatment alternatives report. Common facilities including headworks facilities, clarification, and disinfection are being included that were not required for the

treatment alternative report. B&V prepared alternatives and cost estimates for wastewater routing between the 6th and Canal area and the WWTP as well as plant and pump station improvements required as a result. This was presented to City Council for their consideration and decision. During the third quarter, B&V resumed the design of the WWTP headworks and influent pumping station as well as beginning the tunnel design. The team worked to get the headworks design on the same schedule as the remainder of the WWTP for design and construction as it is a critical element to be included in that bid package. A Notice to Proceed for the tunnel and influent pump station design was issued to B&V to minimize the schedule impacts while the formal contract amendment is developed and reviewed prior to execution.

In the assessment of key processes for the Operations and Maintenance Plan, the City took action to eliminate bottlenecks and vulnerabilities as well as to evaluate and make cost-effective interim upgrades for performance improvements to the existing plant. This was previously submitted as part of the Operations and Maintenance Plan required by Paragraph 15. Additionally, the City continues to make improvements beyond the initial assessments as part of the continual reevaluation and optimization of the existing plant operations. This is ongoing with current update information noted above in Paragraph 15.

20. Request for Proposals – Completed. The City issued a request for qualifications (RFQ) for the implementation of the selected treatment alternative to identify design firms to be invited to submit a proposal in response to the City's request for proposals (RFP). City Council awarded the \$12,954,355 contract to Black & Veatch on March 24, 2008. The final contract was executed on June 23, 2008 with a retroactive effective date of March 25, 2008.

The City requested proposals for WWTP upgrades project management (PM) and construction management (CM). City Council awarded the \$7,825,075 contract for both PM and CM to the team of Hill International/Weston Solutions/Hazen and Sawyer (HWH&S) on September 8, 2008. The final contract was executed on November 11, 2008 with a retroactive effective date of September 9, 2008...

21. Permit Applications and Design –Ongoing. A permitting coordination meeting was conducted on June 30th with the following regulatory agencies represented: PA DEP, US Army Corps of Engineers, Delaware River Basin Commission, and Berks County Conservation District (BCCD). Of note, the BCCD will not exist as is has and is being reorganized in some way. During this transitional time, it is unclear by whom and how this project will be handled for review, permitting, and inspection.

An internal City permitting coordination meeting to introduce details of the project to City planning, zoning, building, and code officials occurred on July 7th in an attempt to expedite the internal approvals process.

A summary of the progress reports received from B&V for the WWTP design performed this quarter is attached.

A summary of the progress reports received from HWH&S for the WWTP PM/CM tasks performed this quarter is attached.

As discussed and requested at the May 26, 2009 meeting, the June 30, 2009 submittal included an updated design and construction schedule for review and

consideration. A July 15, 2009 submittal provided the requested additional information regarding the construction management aspect of the project.

22. Permitting – Not applicable.

23. Construction Completion – No progress.

24. Start-Up and Operation – No progress.

D. Collection System

25. GIS Mapping System - In progress. See below.

(a) **Purpose of GIS System** - Not applicable.

(b) **GIS Mapping of the Sanitary Sewer Collection System** – In progress. The 2005 aerial photography of the collection system has been accepted following quality control checks by the City GIS Coordinator. With the assistance of City sewer team personnel, ATS Chester began field data collection in July, 2006. The initial phase for field data collection is the sanitary interceptors and force mains with phase two being the remaining sanitary structures. The GIS mapping follows each phase's data collection with submission to the City for review and approval. The City's legal counsel was able to reach an amenable agreement with ATS Chester which has now been executed and requires the City to begin fresh and not reuse any ATS Chester data in our possession. The City discussed the impact of this contract on the Consent Decree deadlines in the May 26, 2009 meeting with the US DoJ, US EPA, and PA DEP. This quarter, the City conducted a pre-proposal conference for the GPS field data collection on July 7th with proposals due July 21st. Following an expedited RFQ/RFP review process for interview and selection, two of the seven respondents were interviewed on August 21st with City Council award to Woolpert on August 24th. Contract details are being completed with a Notice to Proceed expected to be issued shortly. The anticipated schedule was included in the June 30, 2009 submittal for review and consideration.

(c) **GIS Mapping of the Storm Water Collection System** - In progress. The third phase for field data collection and GIS mapping is the storm water system. This will be included in the new GPS RFP discussed above.

26. Sanitary Sewer System Evaluation Program

(a) I/I Analysis by Subsystem

During this quarter, B&V and the City discussed the final draft I&I report. Also, the parties continued to discuss scheduling and coordination for the collection system investigative, mapping, modeling, and rehabilitative work.

1. Baseline Flow and Rainfall – In Progress. The flow monitoring and data reduction have been completed by B&V for the I&I analysis. A draft report was submitted to the City for review and comment. Limited reliable data was available for the existing system and tributary populations. Draft prioritization of areas and predictions for peak flows were developed; however, data is being refined as new information is received. The hydraulic

modeling of the interceptors is a key to re-evaluating priorities based on projected bottlenecks that may exist. The City has met with all of the satellite municipalities to gather information on current and future populations, I&I mitigation programs, and definition of tributary areas.

2. Hydraulic Modeling – In Progress. The City has reviewed its system configuration and limitations for consideration in the selection of a hydraulic model. Based on the complexity of the system, B&V recommended a dynamic model named InfoWorks. Upon the receipt of a final data delivery from the GPS consultant on December 24, 2007, B&V set up and began calibrating the model. The data received still contained numerous apparent inaccuracies including incorrect pipe diameters which negatively impacts the hydraulic modeling. A detailed review of the data received was done to determine the extent of problems to be expected during the detailed hydraulic modeling. A test run of the hydraulic model with this data yielded 2700 errors which keep the model from running. In addition, there were 1800 warnings and 8800 information messages. This preliminary model run with the GPS data confirmed the concerns about the data quality. *The City has concerns about the schedule for completing the modeling based upon the ongoing issues with the quality of data received from the GPS field verification. This task is dependent upon the GIS mapping discussed above.* The hydraulic modeling requirements were discussed explicitly in the GPS pre-proposal conference with the phases of work to expedite the areas necessary for the hydraulic modeling.

(b) Sewer System Evaluation Survey – In Progress. The process for the SSES was initiated with the flow monitoring program for the I&I analysis. The City worked with B&V to develop a manhole numbering system for the sanitary sewer system. A preliminary assignment of identifiers was made to manholes indicated on available historical mapping. The numbering system will be refined as the GPS field inventory is conducted and the City is able to resolve discrepancies found between record drawings and the actual infrastructure in the field. Although not explicitly required within the Consent Decree, the City has engaged B&V to develop a maintenance, operation and management (MOM) plan for the collection system in order to help set priorities and standardize operations of City sewer crews. The MOM plan is intended to serve as a guide for the execution of the required SSES as well as ongoing future maintenance of the collection system. B&V has provided draft technical specifications for additional system evaluation to be conducted in accordance with the I&I report recommendations. The smoke testing contract was awarded by City Council on September 22, 2008. Due to the time preparing and executing final contract documents, work was unable to be initiated prior to the freezing of the ground. Smoke testing began this quarter with a kickoff

meeting on August 6th and field work beginning August 24th. A total of 356,039 lineal feet were smoke tested of the 715,546 lineal feet anticipated in the subareas being investigated for inflow. The smoke testing as well as other field investigative work is weather dependent.

27. Rehabilitation Plan – No progress. *The SSES is required to commence by May 7, 2008 while the dependent rehabilitation plan is due prior to the study on which it is based.*

28. Rehabilitation of Priority Areas of Collection System – No progress.

29. Wet Weather Operation Plan – Completed. Plan submitted to US DoJ, US EPA, and PA DEP on May 7, 2007. Response received from US DoJ and EPA on May 9, 2008 approving the submission with notations about overflows and bypass relief points. Separate response received from PA DEP on May 9, 2008 approving the submission.

E. Pretreatment Program

30. General Duty – In progress. The City has an approved pretreatment program and continues to regulate industrial users in the collection system.

31. Enforcement Response Plan (ERP) Implementation – In progress. The City continues to follow the ERP in order to encourage compliance from all industrial dischargers. This is reported directly to US EPA with the quarterly compliance reports.

32. ERP - Penalty Escalation and Compliance Schedule – In progress. The City has been escalating penalties for all industries that are in significant non-compliance for a given parameter for two consecutive quarters. This is reported directly with the quarterly industrial pretreatment status reports to US EPA. The City will continue with this reporting method for the future.

33. ERP – Order, Permit Revocation, and Federal Referral – In progress. The City continues escalating the enforcement actions focusing on the financial penalties assessed to permittees who remain in significant non-compliance. The City continues issuing penalties for compliance issues that were not fined previously such as pH, late reports, late sampling, and late permit applications.

34. Local Limit Adoption by Contributing Municipalities – In progress. Most of the municipalities have adopted the City's sewer use ordinance providing permitting and enforcement abilities for the City with industrial users. All the municipalities with permitted industries have adopted the ordinance. US EPA provided the status from the 2005 audit listing the municipalities requiring ordinance adoption. This has been discussed with solicitors and directly with individual municipalities in question. Electronic versions of the City's sewer use ordinance have been provided to each municipality, engineer, and/or solicitor to prepare for adoption. The City has requested notification and proof of ordinance adoption be submitted. This is being re-evaluated as the inter-municipal agreements are being discussed.

35. Non-Residential Connection Evaluation and Investigation – In progress. The City has been working with the contributing municipalities to obtain information in order to send a survey to evaluate nonresidential users that may be subject to the pretreatment program. This has been requested among other

submissions from individual municipalities. This was also discussed with the municipal meetings conducted in 2007 and municipal field meetings conducted in 2008. The City will be requesting assistance from a consultant or temporary direct hire due to the large number of surveys and inspections required.

36. Increased Monitoring for Violators – In progress. The City continues to increase City sampling and self-monitoring for frequent violators. In general, permits may be amended or re-issued requiring multiple resamples for parameters with prior compliance issues. Some permits require increased frequency of monitoring for multiple quarters of compliance prior to returning to a less frequent self-monitoring schedule. Additional monitoring by both the City and the industry is being tracked and reported to US EPA quarterly.

37. Pretreatment Computerized Management System - In progress and continuing. The City continues data entry into a commercial pretreatment database as well as an abbreviated spreadsheet upon receipt of analytical results from both City and industrial sampling.

38. Local Limits Re-Evaluation – Completed. Evaluation submitted to US DoJ and US EPA on May 5, 2006. Comments were received from US EPA and the City initially worked with B&V to address the comments and concerns. The City will be evaluating options to complete addressing the noted concerns due to timing. The technical specifications for an RFP are under development, and the City has begun investigating the use of temporary experienced direct hires to accomplish these tasks.

39. Quarterly SNC Reports to US EPA – In progress. The City continues to provide quarterly SNC reports to US EPA.

F. Funding

40. Funding – In progress. The 2010 budget was prepared with the budgeted transfer amount remaining at \$3,000,000.

IX. CIVIL PENALTY

47. and 49. Penalty Amount and Payment Instructions – Completed.

X. SUPPLEMENTAL ENVIRONMENTAL PROJECTS: Angelica Stream Restoration

52. Details of SEPs listed below

- a) **Background** - Not applicable.
- b) **Goals of SEPs** - Not applicable.
- c) **Removal of excess sediment and soil stabilization SEP** – Completed.
- d) **Angelica Creek Restoration SEP** – Completed.
- e) **Angelica Creek Riparian Buffer SEP** – Completed.
- f) **Wetland Creation SEP** – Completed.
- g) **Flood plain Meadow SEP** – Completed.

- h) Annual Maintenance and Access to SEPs** – Ongoing. Seasonal maintenance and mowing has begun.
- i) Design Costs and Final Plan** – Completed.
- j) Defendant Certification** – Not applicable.
- k) SEP Completion Report** – Completed. Report submitted to US DoJ, US EPA, and PA DEP on January 30, 2008 as part of the 4th calendar quarterly progress report.

The Angelica Environmental Park ribbon cutting ceremony was held on July 28, 2008.

Additional Items related to Consent Decree

Personnel

Operator Certification – In 2005, the City administration supported management in both water and wastewater during AFSCME contract negotiations. Personnel in certain rank and file positions are given 24 months in which to pass the appropriate certification exams. New hires or transfers into operations are advised of the certification need initially and given materials to read and review as part of their orientation and training. Based on the AFSCME contract language, July 15, 2007 was the initial date for employees who were in operational positions 24 months ago to be required to be certified. From there, new employees' certification requirements are being tracked based on their position start date. The positions requiring certification are Fritz Island Operator (Plant Operator), Pump Tender, and Belt Filter Press Operator (Solids Operator). The first two positions each have four people to provide continual coverage while the last position currently has two people providing two shifts weekdays and weekend coverage as needed. The current AFSCME contract allows some additional flexibility related to uncontrollable changes in certification requirements due to process changes or regulatory changes. During the second quarter, there were no personnel transfers in these positions but some staff requested shift changes. The following table shows the updated certification status of the rank and file employees in the positions requiring certification.

Position	PA DEP Certification
Plant Operator - Day	A,E - 2,3,4
Plant Operator - Evening	A,E - 2,3,4
Plant Operator - Night	A,E - 2,4
Plant Operator - Rotating	E - 4 Passed exam A - 2
Pump Tender - Day	E - 4 Passed exam A - 2
Pump Tender - Evening	A,E - 2,4
Pump Tender - Night	A,E - 2,4
Pump Tender - Rotating	A,E - 2,4
Solids Operator - Day	Due 06/16/2010
Solids Operator - Evening	A,E - 2,4

The City also has certified employees in positions not requiring certification. This is being reported as there is interest in obtaining certification by employees not in positions where it is a requirement.

Position	PA DEP Certification
WWTP Laboratory Technician	A,E - 2,3,4
WWTP Service Utility	A,E - 1,2,3,4
System Equipment Operator 2	E - 4
System Equipment Operator 2	E - 4

Additional WWTP Upgrades –

Although not specifically discussed in the Consent Decree, the following upgrades are being included in the WWTP upgrades for technical and operational necessity of the required improvements.

New WWTP Outfall – During the first quarter of 2009, the City realized the need for a new outfall as B&V had done additional investigation on the current outfall pipe compared to the design flows for the WWTP upgrades. B&V has contacted PA DEP regarding the design constraints for this to be included in the WWTP upgrades. This will require additional permitting and coordination as the outfall is currently submerged below the Schuylkill River and proposed to remain that way. In the future, the update on this progress will be included in the B&V summary as it is included in the WWTP design contract.

Operations and Maintenance

Computerized Maintenance Management System (CMMS) for Collection System– To adequately perform and document an ongoing infiltration and inflow program, catalog televisual inspection, and track service calls and repairs in the collection system, the City determined the need for a formal method to catalog the information. Geographical documentation of this information was the selected method for the database structure. The City has a static database of City information Woolpert has prepared for testing and training purposes. Woolpert made modifications to incorporate the existing work order format, priority, and assignment. Recurring safety and administrative functions are being incorporated into the existing CMMS and will be migrated into this software. Ultimately, this software is planned to be used in much of the Public Works Department.

A faster communication speed to City Hall servers is required to run the software efficiently as viewing the static database is rather challenging to our communication system. During the second quarter, the technology firm evaluated the options, developed a technical RFP for the primary and redundant service based on existing state contract providers, and compared the reliability, feasibility, and pricing of the proposed options for selection and implementation. This selection method was challenged so a professional services RFP was advertised and received by the City. During the evaluation and selection process, this was also challenged as the selection method. The City's Information Technology (IT) division is now involved in attempting to address the communication speed problem. During the third quarter, the Finance Department and its IT division decided to require the utility to replace the existing telephone lines and mount them on the poles as the first step in improving communication speed. Ultimately, this was completed but communication speed has not improved and the CMMS has stalled waiting for this.

42" Force Main and WWTP Influent Routing – A meeting had occurred with a potential developer desiring to develop the riverfront area in Reading surrounding the Sixth and Canal pump station. B&V submitted a feasibility study to compare the options and their associated costs. This situation is impacted by the hydraulics with the WWTP design and has been reviewed by the City and the PM/CM team. Due to the WWTP upgrades impact on hydraulics and the collection system in this area, this must be addressed shortly so as to not impact the design and construction schedule for the WWTP. This topic was discussed with City Council on several occasions as well

as a public meeting conducted on May 27, 2009. On June 8, 2009, Council voted to authorize and direct B&V to incorporate the tunnel option into the WWTP design. Preliminary engineering and planning for additional geotechnical investigation continued with a formal Notice to Proceed issued on September 28, 2009 while the contract amendment was developed by B&V for the City's review. The design update will be included in the B&V update in the future.

Laboratory and Administration

Land and Building – The City purchased a parcel of land in 2005 adjacent to the wastewater treatment plant to be used for the construction of a new building for the administration, laboratory, and collection system. The City purchased a second adjacent parcel in March 2007. The City intends to construct a LEED-certified, 'green' building and an access bridge across the Mifflin Arm of the Schuylkill River to the WWTP. On February 23, 2009 City Council awarded the civil engineering services contract to Herbert, Rowland & Grubic (HRG) and the architectural services contract to Seiler + Drury (S+D). Each firm's contract documents have been executed. Of note, sketch plans for land development review and consideration have been submitted to Cumru Township's Planning Commission (PC) to introduce the project at their June meeting. Late in June, plans were submitted for consideration for at their July meeting. The project has been separated into phases with the building as phase one and the bridge connecting to the WWTP as phase two to expedite the PC review and approval. Conditional final plan approval was received at the September 14th PC meeting with the Township Commissioners approving the project at their September 15th meeting. Requisite permitting is being finalized and the demolition plan and specifications are being finalized to raze the existing structures. The individual firms' detailed summary of work for the second quarter follows.

Administrative

Contributing Municipalities - The City and B&V met individually with the municipalities that contribute flows to the City's wastewater system and plant to provide background information and the City's current status including technical information related to the Consent Decree requirements. Also, the City wanted to obtain current status of flow projections and I&I reduction efforts. Some municipalities and authorities had their own staff or officials in addition to the appropriate engineers. In addition to the Consent Decree requirements for plant upgrades and system projects, the need for municipal adoption of the City's sewer use ordinance was discussed as well as the need for ongoing communication regarding non-residential customers both being related to the industrial pretreatment program. Finally, the process to be followed when planning for new development and the use of PA DEP planning modules were discussed as well.

Field meetings were conducted in the spring and summer of 2008 to inspect each connection point, metering location, and terminal pumping stations to the City system as well as available mapping for the system. This information is being used to develop more accurate service area mapping by connection point. Follow-up meetings have been conducted to view interconnection points between contributing

municipalities and additional information requests have been made based upon the findings of each meeting.

Intermunicipal agreements (IMAs) were reviewed briefly as they are a shorter duration than what is used for planning purposes for the capital improvements plan. The City solicited proposals from legal firms to assist in the evaluation of the existing IMAs and renegotiation of new IMAs. Two proposals were received on May 27th with interviews, selection, and Council award of the contract following quickly. A kickoff meeting with Fox Rothschild was conducted June 29th. Fox Rothschild has been reviewing the City's existing IMAs and other IMAs for wastewater treatment and conveyance, meeting with the City's committee to discuss concerns in the existing IMAs, drafting revised IMAs for review, and meeting informally with some of the larger bulk municipal customers.

Funding - Some key aspects of funding clarification were added to the RFP for the WWTP PM team discussed above in paragraph 20. Grant funding is included in the PM/CM update that follows. Following requests for additional information related to the prior H2O PA grant application, the City learned on July 13th that they were awarded a \$5 million grant in the first round of applications. Research was conducted to determine the action required for release of \$500,000 in the form of a US EPA STAG grant designated for the City in the 2009 federal budget. Meetings were conducted with various agencies regarding financing the capital improvements. These tasks were done by the PM team and are included in their report.

Response Times and Clarifications – The City continues to work in good faith on compliance issues outlined within the Consent Decree. There is concern regarding delays in regulatory responses for questions posed during meetings or within progress reports. As investigative field work in the collection system intensifies, previously identified concerns regarding timeline discrepancies within the Consent Decree become more evident. Clarification is critical to allow the City to balance the allocation of resources in efforts to maintain compliance.

PA DEP Meetings – B&V has been in telephone contact with PA DEP on several permitting issues relative to the WWTP design.

NPDES Permits and Limits – A May 28, 2009 NPDES draft permit was received from PA DEP for the permit which expired on May 1, 2006. The City reviewed the draft limits and began preparing a comment letter to discuss the permit changes as well as the requested information to be incorporated. As discussed in a May 2008 meeting with the permit writer, the final NPDES Part I discharge permit is not anticipated to be released prior to the Part II construction permit per the PA DEP policy when improvements are being planned for a facility. In the third quarter, a draft permit was received for review and comment. The City issued a comment letter and anticipates a meeting with the permit writer to prepare for the final discharge permit issuance.

VI. REPORTING REQUIREMENTS

41. Report Contents and Certification

- (a) **Remedial Measures Paragraphs 7 through 40** – See above numbered sections.
- (b) **Anticipated Problems** – See italics in above numbered sections.
- (c) **Additional Matters** – See italics in above unnumbered sections.
- (d) **Certification Statement** –

I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my directions and my inquiry of the person(s) who manage the system, or the person(s) directly responsible for gathering the information, the information submitted, is to the best of my knowledge and belief, true, accurate, and complete.



Deborah A.S. Hoag, P.E.
Utilities Division Manager

10/30/2009
Date

Black & Veatch WWTP Design Engineering Progress Report Third Quarter 2009 Summary

Project Management

- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Participated in weekly coordination conference calls with the City and PM/CM.
- Provided City and PM/CM with copy of pages from AWWA Manual M29
- Updated design schedule to reflect delays in the start of the Level 1 design for the Headworks and the addition of a new influent pumping station and tunnel.
- Provided sample demolition criteria for hazardous materials
- Received City direction on SCADA software and PLCs for the design.
- Met with architect for Lab/Admin building.
- Provided updated equipment manufacturer listing with lead times for major equipment.
- Conducted a “one stop shop” meeting with City code officials and provided meeting minutes.
- Provided City catalog cuts on scum concentrator, rotary drum thickener, and digester gas monitoring equipment as requested.
- Discussed underdrain system concept for aeration basins with City and received approval of approach.
- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Participated in weekly coordination conference calls with the City and PM/CM.
- Provided City with a draft table of contents for a bond study.
- Worked on Front-end Documents for specifications
- Provided suggested cover letter content to the City for accompanying the permit meeting minutes to the regulators. Letter and minutes to be transmitted by the City.
- Submitted amendment request for Tunnel and Influent Pump Station design and other miscellaneous trend items for the treatment plant design.
- Met with City to review and discuss amendment request.
- Conducted weekly project team conference calls to review progress and coordinate tasks.
- Participated in weekly coordination conference calls with the City and PM/CM.
- Provided City with a draft table of contents for a bond study.
- Worked on Front-end Documents for specifications
- Provided suggested cover letter content to the City for accompanying the permit meeting minutes to the regulators. Letter and minutes to be transmitted by the City.
- Submitted amendment request for Tunnel and Influent Pump Station design and other miscellaneous trend items for the treatment plant design.
- Met with City to review and discuss amendment request.
- Performed site visit to review generator layout and noise levels.
- Provided additional formats of opinion of probable cost for Level 1 as requested by PMCM.
- Provided additional project schedule information as requested.
- Participated in Industry Day.
- Provided information on substation sizing requirements to City.
- Met with City Council to discuss tunnel / influent pump station project.

Permitting

- Prepared project review application for DRBC and requested City provide project review fee for the submittal of the application.
- Negotiated and entered into a contract with Century Engineering to provide PNDI investigations for the grasses.
- Coordinated and conducted a coordination meeting with the regulatory permitting agencies.
- Distributed meeting minutes to City/PM/CM for permit coordination meeting.
- Developed letters for variances for PADEP submittal.
- Coordination with PHMC through conference calls and follow-up information.
- Working on stormwater management and joint application permitting activities.
- Continued to coordinate with HRG on Lab/Admin project permitting.
- Worked with Berks County Conservation District and PADEP to define stormwater permitting requirements.
- Worked on the development of the Environmental Assessment form.
- Reviewed existing and proposed site conditions for stormwater calculations.
- Submitted interpretation of “hot spot” designations in City’s stormwater ordinance for to City for review.
- Performed follow-up with PADEP on effluent sampling location requirements.
- Reviews PADEP request to remove connection of excess flow storage to effluent pump station.
- Continued follow-up discussions with PADEP, BCCD, and US Army Corps on permitting questions.
- Prepare draft variance request letter to accompany BDR.
- Worked with City and HRG to coordinate PNDI investigations for red-bellied and bog turtles
- Received clearance from PHMC.
- Century Engineering performed PNDI investigations for the grasses.
- Met with US Army Corps of Engineers to discuss outfall construction methods and review permitting requirements.
- Received clearance from PHMC.
- Century Engineering performed PNDI investigations for the grasses, submitted report, and received clearance.
- Met with US Army Corps of Engineers to discuss outfall construction methods and review permitting requirements.
- Continued coordination with PADEP and Lancaster County Conservation District to determine responsibilities for E&S planning. Receiving limited and conflicting direction.
- Review of City planning requirements.
- Worked on stormwater management planning and developed options for project to meet stormwater regulations.
- Performed infiltration testing on site for the stormwater design.
- Forwarded “hot spot” interpretation information to GVC
- Continued coordination with regulators on outfall design.
- Continued working with subconsultants through HRG to address red bellied and bog turtle questions.

Site Investigations

- Continued coordination with BIA on surveying efforts.
- Performed survey work at 6th and Canal under direction from City

- Requested surveyor work with City to acquire aerial information
- Continued coordination with BIA on surveying efforts.
- Continued coordination with BIA on surveying efforts.
- Marked locations for potholing of potential pipe conflicts.
- Continued surveying efforts for Sixth and Canal area and Tunnel alignment.
- Coordinated with RAWA and performed hydrant testing.
- Continued coordination with Lab admin building and firing range.

Geotechnical Services

- Developed amendment for geotechnical subconsultant for the additional geotechnical investigations required for the Outfall, mine area probes, and substation areas.
- Reviewed available data and developed scope for mine probe areas associated with the old mine area onsite.
- Performed boring for the substation, generators, and outfall including river borings.
- Commenced geotechnical investigations of the mine area probes.
- Commenced geotechnical investigations of the mine area probes.
- Continued review of comments on Geotechnical Data Report being utilized for design.

Preliminary Engineering Report

- Worked on edits to PER based on comments received from City on June 19.
- Worked on edits to PER based on Level 1 workshop comments.
- Updated PER to include new headworks, influent pump station and tunnel.
- Submitted revised copies of the PER to the City for issuance to PADEP. Renamed the PER to Basis of Design Report (BDR).

Level 1 Detailed Design

- Met with City and PM/CM to review Level 1 design for EPS, UV, Post Aeration and Outfall.
- Prepared and distributed Level 1 workshop minutes.
- Received and reviewed review comments from the City and PM/CM.
- Updated major process equipment manufacturer's list and provided anticipated lead times for equipment delivery.
- Met with the City to review Level 1 architectural design.
- Met with City codes department to review preliminary design.
- Submitted memorandum on reuse of existing secondary digesters.
- Received level 1 comments from PM/CM on 7/10
- Performed QC check of hydraulic profile calculations.
- Received final Level 1 comments from PM/CM on August 17, 2009.
- Submitted Headworks Level 1 design documents to City and PM/CM for review.
- Performed QC check of hydraulic profile calculations.
- Received final Level 1 comments from PM/CM on August 17, 2009.
- Submitted Headworks Level 1 design documents to City and PM/CM for review.
- Held Level 1 workshop for the review of Headworks facilities.

Bid Package No. 1

- Continued to prioritize structural design of the structures to be included in Bid Package No. 1.

Level 2 Detailed Design

- Commenced Level 2 design activities.
- Continued preparation of Level 2 design documents.
- Worked on responses to Level 1 comments.
- Continued preparation of Level 2 design documents.
- Submitted Level 2 documents for WWTP to City and PMCM.
- Worked on responses to Level 1 comments.
- Developed information for presentation to City on P&IDs / control descriptions

Tunnel Design

- Developed scope of work for tunnel design for submission to the City.
- Developed scope for Phase 2 of the geotechnical investigation.
- Developed scope for the surveying associated with the tunnel design. Commenced some of the surveying work.
- Continued survey for tunnel design.
- Requested proposals from geotechnical subconsultants for the Phase 2 geotechnical investigation.
- Continued survey for tunnel design.
- Continued planning, negotiations, and scheduling of geotechnical subconsultants for the Phase 2 geotechnical investigation.
- Reviewing local sewer connections requirements for connection to tunnel.
- Submitted additional back-up information for amendment approval prior to engaging subconsultants.
- Requested City make contact with property owners regarding project.
- Contacted Brentwood to discuss project.
- Continued work on design of influent pump station.

FOG Facility Design

- Received authorization from the City to proceed with FOG design.
- Developed design for incorporation into design documents.

New Electrical Substation

- Continued contact with MetED to provide information as requested

Cumru Township Coordination

- Continued review of potential impacts to Flying Hills Pump Station based on WWTP upgrade.
- Reviewed pump curves to determine if change in impeller size would accommodate the additional TDH created by the new Headworks elevation.
- Reviewed impacts of design on Cumru force main with City and developed cost estimates and figures for extension of force main.

**Hill/Weston Solutions/Hazen & Sawyer
WWTP Upgrades PM/CM
Third Quarter 2009 Progress Report**

Project Management (Hill):

- Performed required administration functions: invoice preparation, meeting coordination, subcontractor and client scheduling coordination,
- Participated in several client meetings: Design Updates, City Manager briefs, City Council update, PLA strategy sessions, Industry Day discussions,
- Participated in several internal coordination meetings with PM/CM team; participated in several OCIP coordination meetings.
- Participated in level 1, part 2 workshops
- Updated Draw Schedule
- Reviewed historical model and commented on revised inter-municipal agreements.
- Performed required administration functions: invoice preparation, meeting coordination, subcontractor and client scheduling coordination.
- Participated in several client meetings: Design Updates, Operational update (with Environmental Division Manager), City Manager briefs, City Council update, Industry Day discussions, Legal Team and Financial Team update.
- Participated in several internal coordination meetings with PM/CM team.
- Prepared and submitted Level 1 Comments Matrix; prepared draft PM/CM Level 1 Assessment.
- Updated Draw Schedule; prepared recommended Regulatory response comments; reviewed and submitted comments on designer's draft Geotechnical Report.
- Reviewed designer's Cost Opinions; reviewed and prepared draft comments regarding the designer's schedule.
- Commented on revised inter-municipal agreements.
- Performed required administration functions: invoice preparation, meeting coordination, subcontractor and client scheduling coordination.
- Participated in several client coordination meetings: Design Updates, Operational update (with Environmental Division Manager), City Manager briefs, Brief to the Mayor, City Council update, Level 1 headworks workshop, Industry Day discussions, Legal Team and Financial Team updates.
- Participated in several internal coordination meetings with PM/CM team.
- Participated in several discussions with the Public Works Director regarding the Engineer's Report.
- Prepared and published the Level 1 PM/CM Assessment Letter.
- Reviewed Grant Funding and Financial Analysis deliverables.
- Prepared and submitted B&V Cost Opinion Comparison Report.
- Prepared for and participated in an Industry Workshop.
- Updated the System Draw Schedule/Cash Flow.

Project Controls (Hill):

- Participated in several PM/CM coordination conference calls and design update conference calls.
- Drafted Design Update meeting minutes.
- Scanned, filed, distributed and posted documents for project team.

- Updated Draw Schedule and presentation slides as required.
- Participated in several PM/CM coordination conference calls and design update conference calls.
- Drafted Design Update meeting minutes.
- Scanned, filed, distributed and posted documents for project team.
- Updated Draw Schedule and presentation slides as required.
- Participated in a joint scheduling meeting; reviewed and commented on the designer's updated schedule; analyzed designer's Cost Opinions (PER and Level 1).
- Established an Industry Day registration account.
- Participated in several PM/CM coordination conference calls and design update conference calls.
- Drafted Design Update meeting minutes.
- Scanned, filed, distributed and posted documents for project team.
- Updated Draw Schedule and presentation slides as required.
- Prepared schedule revisions and time impact analysis based on B&V updated schedule.

Value Engineering: N/A

Design Review/Tech Support: (Hazen-Sawyer and Weston):

- Attended Weekly Design Update meetings.
- Attended Weekly PM/CM coordination meetings.
- Reviewed the Geotechnical Report.
- Provided review of Level One documents..
- Attend Level One, Part II workshop.
- Attended One-Stop Shop meeting. Attended Weekly Design Update meetings.
- Attended Weekly PM/CM coordination meetings.
- Provided review of Level One documents.
- Provided review of Digester Structural Evaluation Memorandum.
- Attended Level One Schedule workshop (August 6th).
- Attended Weekly Design Update meetings.
- Attended Weekly PM/CM coordination meetings.
- Provided review of Level One Headworks documents.
- Attended Level One Headworks Schedule workshop on September 9th.
- Attended Industry Day.
- Reviewed Level 2 Design documents.

Regulatory Compliance: N/A

Grant Funding (Duane Morris):

- Participated in PM/CM Weekly conference calls
- Participated in design conference call(s)
- Prepared updates and reports on funding status as required
- Reviewed and provide comments on several legal documents
- Prepared and forwarded chart of H2O awards
- Continued progress on H2O and Penn Vest funding requests.
- Participated in several PM/CM Conference Calls.
- Sent correspondence to Ryan Hottenstein concerning CFA Board Members.

- Reviewed Fox Rothschild memos (Inter Municipality Agreement) and provided comments to PM; participated in a Legal Team review meeting.
- Prepared chart of H2O Awards and sent to Reading.
- Prepared E-mail and communicated with DCED regarding 2nd round funding (PA H2O Act).
- Prepared August Program status report and e-mailed to PM.
- Prepared and sent Memo to PM re project financing.
- Participated in several PM/CM conference calls.
- Participated in on site meetings.
- Worked on VE study submission.
- Researched EPA Special Appropriation Act Grants and provided information to Owner and team.

Financial Analysis: (PFM):

- Participated in various conference calls
- Attended various meetings, City Council Meetings
- Continued work on Pro Forma modeling
- Participated in several PM/CM conference calls.
- Attended financial review meetings with City officials.
- Attended Inter-Municipal Agreement meetings.
- Performed Model training.
- Worked on the Pro forma model including a growth rate analysis.
- Performed a Debt Service and Cash Flow/Draw schedule analysis.

Public Relations: N/A

Surveying: N/A

Construction Management (Weston):

- Attended project team meeting conference calls
- Attended meeting with regulatory agencies
- Reviewed various DoJ submissions
- Attended Level 1 workshop and Met-Ed meeting
- Reviewed Design Update Meeting Minutes
- Reviewed Industry Day agenda
- Attended design schedule review meeting.
- Participated in an Industry Day conference call.
- Participated in a Design Meeting conference call.
- Attended project Team meeting conference call.
- Participated in a site visit to discuss temporary power; met with Ralph Johnson and Deb Hoag to discuss temporary power issues.
- Participated in a Phone conference call with PM/CM team to discuss B&V cost estimate.
- Attended project team meeting conference call.
- Reviewed PM/CM Level 1 Assessment report.
- Attend weekly design update conference call.
- Attended Headworks Level 1 workshop.
- Reviewed and provided comments on Level 1 Headworks system.
- Prepared Industry Day presentation.

- Attended meeting with City to review Industry Day content.
- Attended Industry Day.
- Reviewed Level 2 Design documents.

Resident Engineer: N/A

Inspection: N/A

Health and Safety: N/A

Start-up: N/A

Herbert, Rowland & Grubic
Utilities Building Civil Engineering Services
Third Quarter 2009 Summary

Preliminary Sketch/LEED

- Coordinate with Architect regarding building lighting
- Progress on LEED credit templates
- Coordinate regarding pavement recycling

Carbonate Geology Report

- Coordination with site soils consultant
- Review completed geotechnical report

Preliminary LD Plan

- Coordinate with Township engineer regarding plan review comments
- Attend July Planning Commission meeting to present plan and discuss review comments
- Discuss rescheduled August meeting and resubmission date
- Coordinate with client and neighbors to discuss concerns
- Prepare landscape concept packages for meeting
- Incorporate revised landscape design into project plans
- Prepare responses to Township letter
- Review BCPC letter
- Prepare revised Land Development plan sets (including detailed lighting information) and submit to Cumru Township
- Review Zoning Officer letter regarding change of use to Community Utility
- Discuss implications with client, attorney, and Zoning Officer
- Review truck access to rear maneuvering area
- Review of new Zoning Officer letter regarding 2nd change of use to Professional Office
- Discuss implications with client, attorney, and Zoning Officer
- Attend Planning Commission meeting to present updated project plans
- Revise plans to address latest round of Township comments
- Discuss implications of 2-phase approach with client and attorney
- Include subdivision/lot add-on element to attach southern strip to property
- Revise zoning information and plans accordingly
- Visit site to obtain count, species, and locations of trees larger than 12-inch diameter in wooded area per new Township comment
- Deliver revised plans and reports to Township
- Review project schedule with construction manager.
- Preparation of memo and exhibit regarding Outdoor Storage requirements and send to Zoning Officer
- Review new GVC comment letter
- Prepare revised parking computations to respond to parking issue and send to Zoning Officer for action
- Prepare for and attend Planning Commission meeting
- Coordinate with client and Township regarding the need to attend the Commissioners meeting
- Revise plans and slope calculation to address new comments

Stormwater Management

- Respond to Township engineer stormwater review and revise report
- Revise stormwater report per expanded property

E&S / NPDES

- Organize BCCD submission.
- Review requirements for BCCD submission
- Revise E&S and NPDES information to include new lot add-on element
- Investigation regarding upcoming BCCD closing

Traffic Impact Study

- Respond to TIS comments for resubmission to Cumru Township and attempt to arrange meeting with Township to discuss approach
- Attend Planning Commission meeting to discuss traffic study
- Coordinate with GVC to address items raised in review letter and original traffic memo
- Revise and resubmit study
- Prepare new waiver requests per GVC direction

Driveway HOP

- Progress on driveway HOP design and plans
- Submit to PennDOT and Cumru Township
- Follow up with PennDOT and Cumru Township regarding plan review status

Road Widening HOP

- Setup of stationing, cross sections, and shoulder grading
- Progress on road widening design and plans
- Submit to PennDOT and Cumru Township
- Initial review of PennDOT comments

Bid Package

- Review of demolition bid package
- Provide comments to construction manager
- Begin preparation of sitework specifications.
- Prepare sitework specifications
- Prepare sitework specifications and construction plans
- Post to ftp site as requested by Architect

Bid Estimate

- Develop onsite improvement estimate for financial guarantee

Sewer Capacity

- Prepare sewage planning module mailer

Water Pressure Test

- Coordinate with Architect and RAWA regarding need for and process to schedule hydrant flow test
- Coordinate with client and RAWA regarding conference call
- Review items required for water system and RAWA review
- Follow up with Architect and WWTP consultant regarding status of flow/pressure study

Survey

- Coordinate to obtain title information and supporting documents for the property
- Review Met Ed easements and right-of-way at southern end of property
- Review title reports and plans regarding access easement, sewer easement, and alley on neighboring property
- Discuss issues with the client
- Coordinate to obtain Matlack plan from Isett surveyors
- Review Met Ed easements and right-of-way at southern end of property
- Review chain of title to establish ownership of strip at southern edge of property
- Review title reports, plans, and other documents regarding existing sewer easements and alley to north of property

Coordination with WWTP Team

- Coordinate with Client, WWTP design engineer, and Herpetological Associates regarding work for bog turtle survey (WWTP) and red bellied turtle surveys (all projects) Exchange current access drive plans with WWTP project manager
- Discuss access and security matters via conference call
- Coordinate with Client, WWTP design engineer, and Herpetological Associates to prepare project descriptions and exhibits needed for red bellied turtle survey report (all projects)
- Review miscellaneous project issues: required truck access, security, gate, communications conduit, etc
- Participate in conference call
- Coordinate with WWTP design engineer and Herpetological Associates regarding various items needed to complete red bellied turtle survey report (all projects)

Bridge Design

- Site visit with bridge geotechnical consultant to view project
- Site review of bridge alignment and connection to island road
- Discuss grading options at connection

Permitting

- Review of potential impacts to permitting from proposed generator oil tank
- Prepare DEP application forms
- Coordinate with client and archaeology consultant to provide services
- Progress on DEP application forms
- Coordinate with client and CHRS (archaeology consultant) regarding status of report Send draft to PHMC for approval
- Review of PHMC approval response to draft report
- Coordinate with CHRS for final report and submission to PHMC

Seiler + Drury
Utilities Building Architectural Services
Third Quarter 2009 Summary

On February 27th of 2009, our office received the Notice to Proceed from the Department of Public Works authorizing our project team to begin Architectural Services towards the development of the new Public Works Utilities Building at the City of Reading's Wastewater Treatment Complex.

Architectural and engineering services continued during the month of July and included the following general project highlights.

General Project Meeting of July 10th (Owner-Professionals) –for review of Design Development Set

Cumru Township Planning Meeting of July 13th

Consultant coordination meeting of July 16th

Coordinating meeting with Black & Veatch work scope at Island of July 23rd

Extent of services during this time period focused on preparing the project's final Construction Documentation set for project bid and construction.

Project Progress includes development of the following items:

- 1) Attend Township Planning Review Meeting of July 13th
- 2) Meetings with Potential Material Representatives and Finish Suppliers
- 3) Preparation of Meeting Minutes per individual meetings and phone conferences.
- 4) Meetings and phone conferences to coordinate new furnishings and laboratory cabinetry

Architectural and engineering services continued during the month of August and included the following general project highlights.

General Project Meeting of July 10th (Owner-Professionals) –for review of Design Development Set

Cumru Township Planning Meeting of August 10th

General Project Meeting of August 13th (Owner-Professionals) –for review of Construction Documentation Progress

Consultant coordination meeting of August 18th

Owner Coordination Conference Call of August 26th

Extent of services during this time period focused on preparing the project's final Construction Documentation set for project bid and construction.

Project Progress includes development of the following items:

- 1) Attend Township Planning Review Meeting of August 10th
- 2) Meetings with Potential Material Representatives and Finish Suppliers
- 3) Preparation of Meeting Minutes per individual meetings and phone conferences.
- 4) Meetings and phone conferences to coordinate new furnishings and laboratory cabinetry

Architectural and engineering services continued during the month of September and included the following general project highlights.

Conference Call of September 4th (Owner-Professionals) –for review of security system parameters

Cumru Township Planning Meeting of September 14th

Consultant coordination meeting of September 15th

Completion and Submission of 95% Construction Documentation for Owner review and comment

Owner Coordination Conference Call of September 24th

Extent of services during this time period focused on preparing the project's final Construction Documentation set for project bid and construction.

Project Progress includes development of the following items:

- 1) Attend Township Planning Review Meeting of September 14th
- 2) Meetings with Potential Material Representatives and Finish Suppliers
- 3) Preparation of Meeting Minutes per individual meetings and phone conferences.
- 4) Meetings and phone conferences to coordinate final finish selections